

Psychological Abstracts

VOLUME 20 · NUMBER 5 · MAY 1946

EDITOR
WALTER S. HUNTER
(Brown University)

WITH THE CO-OPERATION OF

F. C. BARTLETT	Cambridge University
S. BLACHOWSKI	University of Poznań
R. NIHARD	University of Liège
V. OSIPOV	Leningrad
J. PIAGET	University of Geneva
H. PIÉRON	Sorbonne
M. PONZO	University of Rome
P. RANSCHBURG	University of Budapest
M. L. REYMERT	Mooseheart, Illinois
L. S. TSAI	University of Nanking, Chengtu

Editorial Office: BROWN UNIVERSITY, PROVIDENCE 12,
RHODE ISLAND; Business Offices: PRINCE AND LEMON
STREETS, LANCASTER, PENNSYLVANIA AND 1227
NINETEENTH STREET, N. W., WASHINGTON 6, D. C.
Send changes of address to: Psychological Abstracts,
1227 Nineteenth Street, N. W. Washington 6, D. C.

CONTENTS

General (including Statistics)	1322-1357
Nervous System	1358-1377
Receptive and Perceptual Processes	1378-1443
Learning, Conditioning, Intelligence (including Attention, Thought)	1444-1459
Motor and Glandular Responses (including Emotion, Sleep)	1460-1486
Psychoanalysis, Dreams, Hypnosis	1487-1501
Functional Disorders	1502-1554
Personality and Character	1555-1570
General Social Processes (including Aesthetics)	1571-1613
Crime and Delinquency	1614-1624
Industrial and Personnel Problems	1625-1666
Educational Psychology (including Vocational Guidance)	1667-1707
Mental Tests	1708-1713
Childhood and Adolescence	1714-1725

SUBSCRIPTION \$ 7 . 00 A YEAR

FOREIGN \$ 7 . 25

PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, AT PRINCE AND LEMON STREETS, LANCASTER, PENNSYLVANIA

BY THE AMERICAN PSYCHOLOGICAL ASSOCIATION, INCORPORATED

Entered as second-class matter July 12, 1937, at the post-office at Lancaster, Pa., under the Act of March 3, 1879

AUTHOR INDEX

- Adams, C. R., 1535
Adler, A., 1502
Adrian, E. D., 1338
Akimochina, V. A., 1378
Aldrich, C. A., 1503
Alexander, C., 1571
Alexander, F., 1478
Allen, F., 1379
Allen, P., 1334
Allport, G. W., 1572
Alper, T. G., 1667
Ambache, N., 1359
Andriola, J., 1714
[Anon.], 1380, 1444, 1904, 1503, 1573, 1668, 1669
Arieti, S., 1506
Aronson, L. R., 1460
Ashby, M. C., 1718
- Bagchi, B. K., 1617
Bales, R. F., 1507
Barnard, G. A., 1322, 1323
Beebe-Center, J. G., 1381
Beers, C. V., 1461
Bender, J. F., 1670
Bender, M. B., 1382
Bennett, E., 1508
Berger, I. A., 1509
Bergler, E., 1556
Berliner, B., 1487
Berlucchi, C., 1557
Bibby, C., 1671
Bingham, W. V., 1324
Birch, H. G., 1577
Blakeslee, A. F., 1397
Bleckwenn, W. J., 1510
Blumenberg, W., 1617
Blumenfeld, W., 1708
Boehat, J., 1625
Bogen, D., 1614
Bogoslovsky, A. I., 1383, 1384, 1385
Bolashovich, D. J., 1662
Bollmeier, L. N., 1478
Born, W., 1511, 1574
Bornemann, E., 1626, 1627
Boose, F., 1575
Bossard, J. H. S., 1558
Bowman, H., 1672
Bradford, L. P., 1628
Brady, J. P., 1615
Bratbak, J., 1445, 1462, 1559
Braunshausen, N., 1325
Brill, N. Q., 1512
Brillilova, N. B., 1412
Brodman, K., 1654
Bronstein, A. I., 1386
Brotmarkle, R. A., 1560
Brown, B. G., 1687
Bryson, E., 1513
Bullen, A. K., 1470
Bunbury, D. E., 1646
Bunker, H. A., 1514
Burgess, E. W., 1576
Burr, H. S., 1364
Burt, C., 1326, 1561
Burt, H. E., 1327
Busch, A. K., 1521
Bychowski, G., 1562
- Cain, A., 1616
Capel, E. H., 1646
Carhart, R., 1387
Case, H. W., 1709
Cattell, R. B., 1563
Chalk, F. C. R., 1656
Chang, S. T., 1673
Cheever, E. A., 1461
Clark, G., 1577
Clark, I., 1388
Clark, W. W., 1674, 1713
Clarke, H. J., 1570
Clausen, J., 1463
Cohen, E., 1629
Cohn, R., 1360
Cole, S. G., 1612
- Collins, O., 1630
Colman, W. G., 1631
Corcoran, L., 1543
Cornyetz, P., 1564
Cott, H. B., 1464
Crocker, D., 1530
Crouch, C. L., 1389
Culbertson, J. T., 1390
Cummings, S. B., Jr., 1710
- Dand, A., 1446
Darrow, C. W., 1361
Davidov, V. G., 1391
Davies, D. R., 1447
Davis, L., 1443
Davison, C., 1515
Deemer, W. L., Jr., 1632
Deese, J., 1450
Dejer, J., 1448
Del Torto, J., 1564
Despert, J. L., 1465
Detwiler, S. R., 1362
Diethelm, O., 1457
Dixon, A. St. J., 1359
Doik, T., 1675
Doll, E. A., 1676
Dougherty, N. F., 1578
Dunlap, K., 1488
Durrell, D. D., 1677
Dzidzishvili, N. N., 1392
- Eames, T. H., 1715
Eccles, J. C., 1363
Ellerbrock, V. J., 1417
Ellison, F. S., 1432
Erickson, T. C., 1516
Eugenics Society, 1579
Evans, J. N., 1716
Ewer, D. W., 1466
Eysenck, H. J., 1449, 1489
- Falconer, D. S., 1467, 1468
Farnsworth, P. R., 1580
Fay, N. J., 1481
Fedorov, N. T., 1393
Fedorova, V. I., 1394
Feinberg, R., 1633
Ferguson, G. A., 1656
File, O. W., 1634
Fishenden, R. B., 1635
Fisher, C., 1517
Fisher, R. A., 1322
Flemming, C. W., 1636
Flemming, E. G., 1636
Fluge, F., 1328, 1329, 1330, 1331, 1332, 1678
Fodor, N., 1490, 1491, 1518
Forbes, J. K., 1717
Forbes, W. H., 1470
Franck, K., 1565
Freeman, G. L., 1337
Freeman, W., 1456
French, J. R. F., Jr., 1650
Froeschels, E., 1333
Furlow, L. T., 1382
Furneaux, W. D., 1489
- Gaddum, J. H., 1334
Galochkina, L. P., 1395
Gambie, C. J., 1519
Garfield, M. S., 1570
Gassovsky, L. N., 1396, 1469
Gibbs, F. A., 1617
Giglio de Pinto, N. A., 1566
Gill, M., 1712
Goetzl, F. R., 1418
Goodell, H., 1473
Gottlieb, J. S., 1718
Gouhier, H., 1335
Grabbe, P., 1589
Grafton, T. H., 1581
Graham-Bryce, L., 1470
Gray, W. S., 1679
Greenblatt, M., 1372
Greifer, J. L., 1582
- Grenell, R. G., 1364
Gualtierotti, T., 1365
- Habbe, S., 1336
Hall, A. R., 1397
Hall, W. E., 1680
Halstead, H., 1449
Hamlin, R. M., 1336
Hammond, W. H., 1583
Hardtke, E. F., 1637
Hardy, L. H., 1398, 1399
Harmon, D. B., 1681
Harriman, P. L., 1337
Hartmann, G. W., 1337
Hartridge, H., 1400, 1471, 1472
Havin, H., 1638, 1682
Haydon, E. M., 1618
Heider, F., 1584
Henny, G. C., 1484
Hildreth, H. M., 1520, 1615
Hill, J. M., 1520
Hipskind, M. M., 1401
Hoagland, H., 1480, 1481
Hoffman, A. C., 1381
Hofstatter, L., 1521
Hofstatter, P. K., 1711
Holmington, L. B., 1402
Holmes, T. H., 1473
Holzinger, K. J., 1338
Howard, R. W., 1719
Hsu, E. H., 1366
Humphrey, B. M., 1498
Hunt, W. A., 1522
Hurst, J. B., 1367
Hutchinson, J. C. D., 1485
- Iakovleva, S. P., 1403
Israeli, N., 1639
Ivanova, E. M., 1384
- Jarrett, R. F., 1339
Jenkins, J. G., 1340
Johnson, R. H., 1567
Ju, Y. Y., 1683
Jurgensen, C. E., 1640, 1641, 1642
- Kaback, G. R., 1684
Kahn, S., 1492
Katz, D., 1341
Katz, E., 1523
Katz, J., 1372
Kazan, A. T., 1568
Keir, G., 1720
Kekcheyev, K., 1404
Kellaway, P., 1368, 1369
Kelley, D. M., 1524
Kellogg, W. N., 1450
Kemp, E. J., 1474
Kendel, E. H., 1707
King, A. J., 1379
Knight, R. P., 1493
Knott, J. R., 1718
Knower, F. H., 1585, 1586
Koff, S. A., 1569
Kornmüller, A. E., 1370
Kotlarevskaja, S. Z., 1405
Kozol, H. L., 1525
Kraimes, S. H., 1643
Kravkov, S. V., 1385, 1406
Kristvik, E., 1342
Kroh, O., 1343
Kronenberg, M., 1654
Krumbiel, S., 1475
Kuhn, F. D., 1644
- Landau, E., 1371
Landis, P. H., 1721
Lantis, M., 1344
Lapinskaia, E. A., 1439
Lawah, C. H., Jr., 1445
Lazarev, P. P., 1407
Lebedinsky, A. V., 1386
- Leconte-Lorsignol, S., 1722
Lee, E. A., 1685
Lehndorff, A., 1570
Lennox, W. G., 1526
Lepley, W. M., 1555
Leuba, C., 1587
Levin, S., 1372
Levinson, H., 1693
Lewis, K., 1337, 1588
Lewis, A., 1646
Lewis, N. D. C., 1527
Lhernitte, J., 1494
Lifschitz, N. N., 1408
Lindner, R. M., 1619
Lindsay, J. R., 1476
Lippman, H. S., 1620
Locke, H. J., 1576
Logan, H. L., 1647
Long, L., 1457
Longaro, L. C., 1686
Lorenz, K., 1477
Loveless, W. B., 1648
Lucas, C., 1587
Luckiesh, M., 1409
Ludtke, H., 1410
Lueck, I. B., 1649
Luney, A. S., 1373
Lurje, Z. L., 1528
- Machle, W., 1411
McKeon, R. M., 1529
MacLean, P. D., 1530, 1536
McMahan, E., 1495
MacPhee, H. M., 1710
Malamud, D. I., 1531
Mallory, E. B., 1667
Marrow, A. J., 1650
Martini, E., 1374
Maslow, A. H., 1337
Mason, I., 1621
Mastrangelo, G., 1532
Masuoka, J., 1589
Mayers, A. N., 1533
Mead, L. C., 1381
Meier, F. H., 1687
Mellenbruch, P. L., 1688
Meller, E. N., 1534
Menninger, W. C., 1535
Meshkov, V. V., 1412
Meyer, A., 1478
Mikalaia, A. E., 1530
Miller, D. R., 1651, 1652
Mills, W. B., 1645
Ming, T. S., 1683
Minton, J., 1653
Mitchell, C., 1590
Mitchell, M., 1667
Mittelmann, B., 1496, 1654
Moore, M., 1530, 1536
Moreno, J. L., 1537, 1538
Morgan, J. J. B., 1451
Morgan, L. D., 1413
Morris, A., 1452
Morrison, L. M., 1414
Morrison, L. R., 1375
Morselli, G. E., 1539
Mueller, J. H., 1591
- National Roster of Scientific and Specialized Personnel, 1655
Naylor, G. F. K., 1345
Needles, W., 1540
Neugarten, B. L., 1689
Nickerson, D., 1415, 1416
Nikolskaya, N. A., 1469
Nissen, H. W., 1479
Noble, G. K., 1460
Nyman, A., 1346, 1453
- O'Connor, A. D., 1431
Oferman, E. M., 1549
Ogle, K. N., 1417
Olson, W. C., 1347
Opler, M. E., 1592
Oppenheimer, M. J., 1476
Otterstrom, R., 1697
- Overás, A., 1690, 1691
- Page, R., 1593
Parcheminey, —, 1494
Parsons, C. M., 1418
Pascal, J. I., 1419
Pathman, J. H., 1361
Pearce, S. C., 1334
Perlman, H. B., 1420, 1421
Pescor, M. J., 1622
Petch, J. A., 1692
Pfugfelder, G., 1541
Phelps, J., 1400
Phillips, G. H., 1693
Pickford, R. W., 1423
Piene, F., 1694
Piene, K., 1694
Pincus, G., 1480, 1481
Pollak, H., 1423
Poos, E. E., 1424
Porta, V., 1376
Portenier, L. G., 1348
Porteus, S. D., 1594
Prados, M., 1542
Pressey, S. L., 1595
Prevey, E. E., 1596
Price, H. G., 1543
Priest, R. E., 1425
Prunko, N. H., 1450, 1597
- Rabkin, E. B., 1426
Radziewicz, L., 1623
Rand, G., 1399
Rapaport, D., 1712
Ray, B. S., 1427
Recktenwald, L. N., 1695
Redlich, F. C., 1544
Reenpää, Y., 1349
Reynolds, B., 1454
Rhine, J. B., 1497, 1498
Ries, B. F., 1482, 1483
Ritter, M. C., 1399
Robinson, B. B., 1696
Robinson, F. F., 1680
Robinson, G. C., 1545
Robinson, L. J., 1546
Rosenbluth, A., 1350
Rosenzweig, S., 1570
Rosner, A. A., 1547
Rosa, A., 1531
Rosen, W. D., 1636
Ruch, F., 1709
Russell, F., 1646
Ryle, J. A., 1352
- Samelson, B., 1598
Sanders, J., 1707
Sardón, M. A., 1708
Schafer, R., 1712
Schneider, J., 1599
Schonfeld, M. D., 1549
Schrammel, H. E., 1693, 1697
Segerstedt, T. T., 1600, 1601, 1602
Sexton, M. C., 1548
Shachnovitch, R. A., 1534
Sheinberg, I. M., 1568
Sherman, M., 1366
Shilling, C. W., 1428
Simmons, L. W., 1603
Simpson, R. G., 1698
Skinner, C. E., 1337
Slauer, R. G., 1429
Slavson, S. R., 1723
[Slocum, C. S.], 1657
Smith, G. H., 1604
Smith, M., 1353
Smith, W., 1430
Smolik, E. A., 1521
Snedecor, G. W., 1354
Snyder, L. H., 1549
Sorsby, A., 1431
Spiegel, E. A., 1414, 1476, 1484
Spoerl, D. T., 1605
Saakylina, N. P., 1724
Staff, Classification and Replacement Branch, AGO, 1658
- Staff, Psychological Research Project (Navigator), 1659
Staff, Psychological Research Project (Pilot), 1660
Staff, Test and Research Section, Bureau of Naval Personnel, 1661
Stevens, A. C., 1699
Stevens, I., 1550
Stewart, D. A., 1662
Stone, L. S., 1432
Streiff, J., 1433
Strother, C. R., 1606
Stuart, C. E., 1499
Sullivan, H. B., 1677
Sweetland, A., 1434
- Taillieu, J., 1725
Taylor, A. H., 1409
Teplow, B. M., 1435
Thorne, L., 1607
Thorpe, L. P., 1674, 1685, 1713
Thorpe, W. H., 1455
Thurstone, L. L., 1608
Tiegs, E. W., 1713
Tiffin, J., 1663
Tomasić, D., 1609
Tonner, F., 1436, 1437, 1438
Toops, H. A., 1664
Turner, J. W. C., 1623
- Van der Heide, C., 1551
[Various], 1700
Vernon, H. M., 1665
Verrietti, G., 1500
Vonachen, H. A., 1654
von Hentig, H., 1624
- Waehner, T. S., 1610
Wagner, W., 1552
Wagoner, K. S., 1381
Walker, E. F., 1512
Wall, W. D., 1701
Wallon, J. E. W., 1702
Walter, M. M., 1666
Watts, J. W., 1456
Weber, E. G., 1703
Weber, H. H., 1438
Weider, A., 1654
Weider, N., 1654
Well, R., 1400
Weinberg, J., 1551
Weinberg, W. B., 1439
Weiner, J. S., 1485
Weiss, P., 1377
Welch, L., 1457
Welford, A. T., 1611
Wertham, F., 1440
West, D. J., 1501
Wiener, N., 1350
Wiess, M. J., 1612
Wilder, J., 1553
Williams, J. J., 1613
Willmer, E. N., 1441
Wilson, C. H., 1481
Wilson, D. G., 1423
Wilson, F. M., 1704
Wilson, M. O., 1458
Witmer, H., 1629
Wohlmann, H., 1486
Wolberg, L. R., 1554
Wolff, H. G., 1427, 1473, 1654
Wolfe, D., 1355, 1356
Wolters, A. W., 1459
Woodruff, A. D., 1705
Woods, A. C., 1442
Wright, B. H., 1706
Wright, E. A., 1359
Wright, H. F., 1710
Wright, W. D., 1441
Wrinkle, W. L., 1707
Wycia, H. T., 1476, 1484
- Yacorzynski, G. K., 1443
Zilborg, G., 1357
Zimkin, N. V., 1386

Psychological Abstracts

VOLUME 20

NUMBER 5

MAY 1946

GENERAL (incl. Statistics)

1322. Barnard, G. A. A new test for 2×2 tables. *Nature, Lond.*, 1945, 156, 177.—A test of the null hypothesis is described, applicable to a fourfold table with one set of marginal totals fixed. The procedure has the effect of reducing the level of significance; the author therefore regards his test as more powerful than the test proposed by Fisher. In commenting on this article, Fisher (same journal, p. 388) claims that this reduction is due to including 'irrelevant' or 'unhelpful' outcomes whose probable occurrence should not be used to enhance the judgment of significance in situations where they have not occurred. In replying to this comment, Barnard (same journal, p. 783) maintains that, while the above criticism may apply to a number of situations in which the data result in fourfold tables, in certain specified situations the otherwise 'unhelpful' outcomes are relevant to the null hypothesis and so the probability of their occurrence must be included in the test of significance.—A. C. Hoffman (Tufts).
1323. Barnard, G. A. Economy in sampling. *Nature, Lond.*, 1945, 156, 208.—The author suggests that the null hypothesis tests of fourfold table data may be adapted to the problem of deciding the size of sample to use. By making the sample size one of the variables which are determined in the course of the experiment, sampling need be continued only until the experimental issue involved is settled.—A. C. Hoffman (Tufts).
1324. Bingham, W. V. Clarence Stone Yoakum, 1879-1945. *Amer. Psychologist*, 1946, 1, 26-28.—Obituary and appreciation.—N. R. Bartlett (Johns Hopkins).
1325. Braunshausen, N. La psychologie expérimentale et son importance pour la psychologie générale. (Experimental psychology and its importance for general psychology.) *Cah. Pédag. belg.*, 1940, 4, 143-147.—As the advances of psychotechnology tend to relegate the experimental laboratory to a secondary position, it is necessary to reaffirm the importance of the work on theoretical problems for general psychology. This relationship is pointed out by referring to research on depth perception (Diekmann), vision with the eyes closed (Bourdon), the environmental configuration in animals (Uexküll), types of mathematicians (Jaensch and Althoff), and the association between the personality types of Jaensch and value judgment (Weiland).—(Courtesy *Année psychol.*).
1326. Burt, C. Obituary: Professor C. E. Spearman. *Nature, Lond.*, 1945, 156, 740-741.—This obituary recalls Spearman's development of his two-factor theory of mental processes.—A. C. Hoffman (Tufts).
1327. Burt, H. E. Francis N. Maxfield, 1877-1945. *Amer. Psychologist*, 1946, 1, 28.—Obituary and appreciation.—N. R. Bartlett (Johns Hopkins).
1328. Fluge, F. Retninger i psykologien. (Trends in contemporary psychology.) *Norsk ped. Tidsskr.*, 1941, 25, 13-19.
1329. Fluge, F. William James, 1842-1942. *Norsk ped. Tidsskr.*, 1942, 26, 247-251.
1330. Fluge, F. Nytt fra det psykologiske grannskningsfeltet. I. Hjernegranskninga. (Some new results in the science of psychology. I. Brain.) *Norsk ped. Tidsskr.*, 1943, 27, 156-158.
1331. Fluge, F. Nytt fra det psykologiske grannskningsfeltet. II. Intelligensgranskninga. (Some new results in the science of psychology. II. Intelligence.) *Norsk ped. Tidsskr.*, 1943, 27, 182-193.
1332. Fluge, F. Nytt fra det psykologiske grannskningsfeltet. III. Karakterologien. (Some new results in the science of psychology. III. Characterology.) *Norsk ped. Tidsskr.*, 1943, 27, 212-214.
1333. Froeschels, E. About the name and some pathologic functions of the "unconscious." *J. clin. Psychopath. Psychother.*, 1945, 7, 273-279.—By the substitution of phrases like "expression-ripe" and "not-expression-ripe" for words like "conscious" and "unconscious" (similarly: speech-ripe, note-ripe, paint-ripe, etc.), the author hopes to clarify the descriptive problems involved in psychiatry. He offers an entirely new philosophical expression, based on the belief that we are born with the potential knowledge of the universe, but this has to be activated by experience.—C. E. Henry (U. S. Naval Reserve).
1334. Gaddum, J. H., Allen, P., & Pearce, S. C. Lognormal distributions. *Nature, Lond.*, 1945, 156, 463-466; 746-747.—Gaddum, the author of the first of the four articles included in this study, points out that logarithmic transmutations of data or of some function of the raw data may be normally distributed and homoscedastic in cases where the original data were not normally distributed or variances of arrays were not equal. He therefore describes and advocates the use of such transformation (which he calls lognormal distributions) to increase the accuracy and scope of the conclusions that may be drawn from experimental observations. Allen elaborates the method in applications to geological data. Pearce investigated empirically the properties of two types of logarithmic transformation [$X = \log(2x + 1)$ and $X = \log(x + 1)$] and found

that the transformations did allow the assumption of homoscedasticity (as Gaddum suggested they would) even though the raw data did not. The original author emphasizes again in the last article that: "The choice of the appropriate technique for any given problem must always be based, if possible, on direct evidence of its suitability."—*A. C. Hoffman* (Tufts).

1335. Gouhier, H. *Psychologie et théologie dans la philosophie de Maine de Biran.* (Psychology and theology in the philosophy of Maine de Biran.) *Rev. phil.*, 1945, 69, 289-309.—Maine de Biran (1766-1824), like Rousseau and Pascal before him, sought a basis for a spiritual life in a world in which the sciences had no need for first causes and in which biology was laying claim to what there was left of a soul. He constructed a dynamic psychology which would readily furnish a naturalistic explanation of the spiritual life. His psychological system, called the theory of the three lives, embraced the animal self, the conscious will, and the divine self, resembling Freud's concept of the id, ego, and superego. The animal self included the simple affections, i.e., the instinctive-emotional tendencies; the conscious will was the ego or conscious effort to elevate oneself above this animal condition; the divine self was the ideal ego, the moral self or *l'esprit-amour*, by the aid of which only can the conscious will triumph over the animal self and interior peace and calm be attained. Philosophy as well as religion should, according to Maine de Biran, be founded on psychology.—*F. C. Sumner* (Howard).

1336. Hamlin, R. M., & Habbe, S. *State psychological societies.* *Amer. Psychologist*, 1946, 1, 17-21.—"Some of the available information on fourteen state psychological societies has been summarized to promote interest in such groups and to furnish a possible guide for the organization of similar societies. Constitutions of eleven societies have been considered. Purpose, organization, and activities of two societies with different points of view have been discussed in detail."—*N. R. Bartlett* (Johns Hopkins).

1337. Harriman, P. L. [Ed.] *Twentieth century psychology: recent developments in psychology.* New York: Philosophical Library, 1946. Pp. xiii + 712. \$6.00.—The volume consists of 39 papers, 25 of which had been published previously, divided into 8 groups: general and theoretical, social, animal, experimental, aesthetic experience, abnormal, differential, and child psychology. The editor was assisted in the preparation of the book by G. L. Freeman, G. W. Hartmann, K. Lewin, A. H. Maslow, and C. E. Skinner.—*C. N. Cofer* (U. S. Naval Reserve).

1338. Holzinger, K. J. *Spearman as I knew him.* *Psychometrika*, 1946, 10, 231-235.—Appreciation and portrait.—*G. R. Stone* (Indiana).

1339. Jarrett, R. F. *On the permissible coarseness of grouping.* *J. educ. Psychol.*, 1945, 36, 385-395.—The psychologist is in need of assistance in determining the number of class intervals which should be employed in grouping his data as a prelim-

inary to his statistical calculations. The choice of the interval depends on the ratio of the standard error of grouping to the standard error of random sampling, and ordinarily this should not be greater than one to ten. The author offers a table showing the mean ratio of standard error of grouping to standard error of random sampling (for means), for samples of various sizes and for various numbers of class intervals.—*E. B. Mallory* (Wellesley).

1340. Jenkins, J. G. *New opportunities and new responsibilities for the psychologist.* *Science*, 1946, 103, 33-38.—Psychologists are urged to pursue research problems which have greater social significance than have most of the problems investigated. Although the work which psychologists have done has been valuable and good, there has been a tendency to avoid certain problems and branches of psychology because work in these fields has smacked too much of technology and because the problems are difficult to attack and the results are not so clear-cut as experimenters would like. In spite of many disadvantages, the author feels that psychology can perform great service to society by investigating such fields as personality testing, determining the results of educational programs, the influence of public opinion polls upon actual voting behavior, etc.—*F. A. Mote* (Connecticut).

1341. Katz, D. *Gestaltpsychologi.* (Gestalt psychology.) Stockholm: Kooperativa Förbundets Bokförlag, 1942. Pp. 151, 4.25 Kr.—[Abstracted review; original not seen.] Although he holds that Gestalt psychology is the psychology of the future, Katz emphasizes its limitations and is opposed to attempts to include all mental phenomena within this scheme. Epistemologically, Katz rejects the doctrine of pure perceptions as held by Helmholtz, Mach, and Bertrand Russell, i.e., "pure impressions . . . soaring freely by themselves without any conditions of observation whatever." He attacks the physicalism resulting from isomorphism on the ground that this negates the dynamic and self-regulating character of the psychological field. Katz holds that thought still remains a riddle to Gestalt theory, since isomorphism is inadequate to explain the symbol function. Husserl's phenomenology is the philosophical basis of the Gestalt position, a fact which explains some of its methodological obscurities and its contradictoriness in reproaching the "older" psychology for its preoccupation with perception while exhibiting an excessive concentration of effort in that area itself.—*G. W. Hartmann* (Teachers College, Columbia).

1342. Kristvik, E. *Professor Helga Eng i hennar pedagogisk-psykologiske forfatterskap.* (Professor Helga Eng in her pedagogical-psychological writings.) *Norsk ped. Tidskr.*, 1945, 29, 49-62.

1343. Kroh, O. *Ein bedeutsamer Fortschritt in der deutschen Psychologie. Werden und Absicht der neuen Prüfungsordnung.* (A significant advance in German psychology; the history and goal of the new examinations.) *Z. Psychol.*, 1941, 151, 1-32.—The new requirements for the diploma in psychology

in the German universities are described. It is clear that the tendency of psychology must become more and more oriented toward practical ends, for psychologists have a vital role to play in all aspects of national life, in view of the necessity of utilizing all individuals capacities and skills. But the basis for the theoretical framework of psychology must still be a general culture of a strongly scientific and philosophical nature.—(Courtesy *Année psychol.*)

1344. Lantis, M. Applied anthropology as a public service. *Appl. Anthropol.*, 1945, 4, 20-32.—The applied anthropologist uses three fundamental means: advising, directing (administering), and instructing or informing. Three types of groups consult him: the private company, the government agency, and the planning commission or welfare organization. "The basic attitude of the applied anthropologist is sound, but it needs sharper definition. If he once decides that his basic ultimate purpose is not just to understand people but to give them information so that they can understand themselves, then he can organize his discipline and can teach it. He need not fear that he will be only a social doctor dealing with sick cultures. His work will be fundamentally education, extension work in its best sense."—F. Fearing (California).

1345. Naylor, G. F. K. Estimation of multiple correlation by means of stereographic projection. *Nature, Lond.*, 1945, 156, 58-59.—A method is developed for estimating multiple correlations between a criterion variable and more than two other variables. It differs from the more accurate but lengthier algebraic procedures in that combinations of variables are built up successively instead of simultaneously. The chief innovations are (i) the use of a stereographic projection (with the aid of a stereographic net graduated in cosines instead of in degrees) "and (ii) the combination of a graphical procedure with certain approximate equivalences similar to those used by Kelley in building up his multiple correlations. The method has already been used in selecting psychological test batteries of the ordinary type, and found sufficiently reliable for most practical purposes." Comments on this method appear on page 338 of the same journal.—A. C. Hoffman (Tufts).

1346. Nyman, A. Nya vägar inom psykologien. (New ways in psychology.) (Rev. ed.) Stockholm: P. A. Norstedts & Söners Förlag, 1943. Pp. 278. 6 Kr.—[Abstracted review; original not seen.] This is the standard Swedish account of leading psychological doctrines such as behaviorism, Gestalt psychology, dimensional psychology, psychoanalysis, individual psychology, characterology, and crowd and group psychology. Charles Hartshorne's dimensionalism is prominently displayed; it is recognized as an extension and modernization of the principles of Peirce, although its emphasis on the unity of the modalities shows affinities with the Gestalt position. Nyman's own standpoint is reflected in the conceptions of mathematical continuity, affective tone, the social character of all experience, biological

adaptiveness, and evolution from a common origin.—G. W. Hartmann (Teachers College, Columbia).

1347. Olson, W. C. Proceedings of the fifty-third annual meeting of the American Psychological Association, Inc., Evanston, Illinois, September 6, 7, 8, 1945. *Psychol. Bull.*, 1945, 42, 695-747.—The report includes the election of officers, members and associates, the considerations and decisions of the Board of Directors, and the reports of the various committees.—S. Ross (U. S. Naval Reserve).

1348. Portenier, L. G. Proceedings of the fall meeting of the Rocky Mountain Branch of the American Psychological Association. *Psychol. Bull.*, 1945, 42, 748-750.—The results of elections and abstracts of papers are presented.—S. Ross (U. S. Naval Reserve).

1349. Reenpää, Y. Wahrnehmen und Denken. (Perception and thought.) *Theoria*, 1945, 11, 99-125.—A study of the relation between the phenomenal and the logical is of fundamental significance for such a science as sensory physiology. After describing in verbal language certain features of phenomenal experience, such as modality differences, sensory dimensions, and the discontinuity of the sensory dimensions, the author discusses the development in modern logic called by Carnap "logical syntax." He then shows the parallel which obtains between the axioms of phenomenal observation, translated into formal terms, and the axioms of logical syntax, using as examples sentences concerning "surface colors." He concludes that the study of various forms of experience, e.g., the sense modalities, shows that they are not alike with regard to the logical axioms which are applicable to them. Thus, only a few axioms hold for twilight vision, as compared with daylight vision. The structure of thought is formally similar to that of the more highly developed senses, such as daylight vision and touch. It is suggested that thought, as presumably a later biological acquisition than perception, developed in conformity with the structure of the modalities which were most significant biologically.—F. W. Irwin (Pennsylvania).

1350. Rosenblueth, A., & Wiener, N. The role of models in science. *Phil. Sci.*, 1945, 12, 316-321.—A distinction is made between material and formal models. In some cases the former differs from the original system in no more than temporal and physical scale. In other cases the model may have a quality, such as transparency, not found in the original. It must be emphasized, however, that not all material models are useful. A formal model may be a heterogeneous assembly of logical elements, some of which are treated in detail and others only functionally. As science advances in a given field, for example the theory of sound, the model is improved by the successive introduction of additional variables. This process, however, can not be continued indefinitely. "Partial models, imperfect as they may be, are the only means developed by science for understanding the universe."—R. H. Dotterer (Pennsylvania State College).

1351. Ross, A. On the illusion of consciousness. *Theoria*, 1941, 7, 171-202.—Philosophical speculation takes as its starting-point the common-sense dualism of the physical and psychical. Recent philosophy retains the notion that "immediately conceived, all that is given is given as phenomena to a consciousness." This assumption itself is of a meta-physical nature. Further, it involves contradictions and metaphysical absurdities, since one can, for example, prove both that "the function of consciousness . . . is not itself a phenomenon" and the direct opposite of this statement. Neither "consciousness" nor "consciousness of phenomena" exists. The immediately given has no subject-object polarity, and is not knowledge of anything. The incorrect view, that perception transcends itself in such a way as to be a psychical element and simultaneously to hold knowledge of something else, is due to a confusion between epistemological and psychological analyses of what is immediately given. All knowledge is theory or hypothesis. To avoid self-contradictions, we must remain wholly in what is immediately given or in the world of objects in space and time. In the latter case, everything "must be described in physical-physiological, including behavioristic, and materially psychical terms." The concept of one's own mind is just as problematic and impossible as the concept of other minds.—F. W. Irwin (Pennsylvania).

1352. Ryle, J. A. Social medicine as a discipline. *Brit. J. industr. Med.*, 1945, 2, 108-110.—Social medicine is the study of the man-environment relationship, material and personal, in both health and disease, man as a person and as a member of a group. It integrates all the sciences related to man, includes social experiment, and necessitates re-orientation of undergraduate teaching. Although not yet a science, it is more than a mode of practice. Ryle describes the teaching program at Oxford University, where social medicine is taught, not as a separate subject, but as an integral part of the various clinical branches when they are taken up.—M. E. Morse (Baltimore, Md.).

1353. Smith, M. Hypothesis vs. problem in scientific investigation. *Phil. Sci.*, 1945, 12, 296-301.—Basing his argument upon definitions quoted from the *Dictionary of Philosophy* (see 16: 1319), the author contends that problems may be solved, in some cases, without the formation of hypotheses. Indeed, the use of hypotheses, unless carefully safeguarded, may be dangerous; for the desires of the one who forms the hypothesis may be projected into his perception, collection, analysis, and interpretation of data. This process of projecting a hypothesis into results and conclusions may remain the error of an individual, or the hypothesis may become the property of a group, school, or cult.—R. H. Dotterer (Pennsylvania State College).

1354. Snedecor, G. W. Statistical methods. (4th ed.) Ames, Iowa: Collegiate Press, 1946. Pp. xvi + 485. \$4.50.—The present edition has been extensively rewritten (see 13: 57) to include greater

emphasis upon theory and the conduct of experiments as well as upon estimates, fiducial statements, and methods for disproportionate subclass numbers. An outline is given by means of which a short course in the elements of statistical method can be taught from the present volume.—W. S. Hunter (Brown).

1355. Wolfe, D. [Ed.] The American psychologist; the professional journal of the American Psychological Association, Inc. Baltimore: American Psychological Association, Inc. Vol. 1, No. 1, January, 1946. Monthly. \$7.00 per year.

1356. Wolfe, D. The reorganized American Psychological Association. *Amer. Psychologist*, 1946, 1, 3-6.—Objectives, membership classes, organization, and government of the Association are sketched.—N. R. Bartlett (Johns Hopkins).

1357. Zilboorg, G. Smith Ely Jelliffe, October 27, 1866-September 25, 1945. *Psychoanal. Quart.*, 1946, 15, 1-5.—Obituary and portrait.—M. H. Erickson (Wayne County Gen. Hosp. & Infirm.).

[See also abstracts 1477, 1585, 1586.]

NERVOUS SYSTEM

1358. Adrian, E. D. Convulsive discharges in the nervous system. *Schweiz. med. Wschr.*, 1941, 22, 402-403.—Nerve impulses from the sense organs have frequencies normally between 10 and 200, with intense stimulation sometimes inducing brief bursts up to 500 per second. After applying convulsants to the cortex, however, centrifugal discharges with frequencies between 500 and 1000 per second can be obtained. The explosive and intensive character of such epileptiform discharges must be dependant upon cellular changes.—(Courtesy *Année psychol.*).

1359. Ambache, N., Dixon, A. St. J., & Wright, E. A. Some observations on the physiology and pharmacology of the nerve endings in the crop and gizzard of the earthworm with special reference to the effects of cooling. *J. exp. Biol.*, 1945, 21, 46-57.—Evidence is advanced that the rhythmic movements of a warm preparation are neurogenic in origin and peristaltic in nature. Peristalsis is accompanied in the warm preparation by a continual liberation of acetylcholine. This is not present in cold preparations. The effects of potassium, calcium, adrenaline, and barium on warm and cold preparations are discussed. The presence of multipolar nerve cells in the enteric plexus was demonstrated in histological sections of the crop and gizzard.—M. M. Simpson (Wisconsin).

1360. Cohn, R. Electroencephalographic study of prefrontal lobotomy. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 283-288.—A study of electroencephalographic manifestations of cerebral damage specifically in relation to prefrontal lobotomy is reported.—K. S. Wagoner (DePauw).

1361. Darrow, C. W., & Pathman, J. H. Attachment of electroencephalographic electrodes. *Science*, 1946, 103, 22.—The authors recommend using a paraffin wax of low melting point (47° to 49°C.) for

attaching electrodes used in EEG recording.—*F. A. Mote* (Connecticut).

1362. **Detwiler, S. R.** The results of unilateral and bilateral extirpation of the forebrain of *Amblystoma*. *J. exp. Zool.*, 1945, 100, 103-117.—Two types of operations were performed on *Amblystoma* embryos in Harrison's stage 21: (1) complete removal of the forebrain, the presumptive nasal placodes, and the rudiments of the eyes; and (2) removal of the right half of the forebrain. Seventeen of the embryos subjected to the first type of operation were joined parabiotically with normal embryos which served both as nurses and controls. The larvae devoid of cerebral hemispheres, eyes, and nasal sacs were able to lead an autonomous existence; the motor activities concerned with lurching, engulfing food, chewing, and swallowing were carried out in an integrated manner but with slightly less vigor than in normal larvae; spontaneous foraging reactions were reduced and growth was greatly retarded; no morphogenetic influence upon the medulla was noted, but there were striking deformities in the morphology of the head. After removal of the right half of the forebrain no regeneration was observed; there was cellular hyperplasia in the contralateral hemisphere, and the ipsilateral nasal sac showed a compensatory size increase.—*L. C. Mead* (Tufts).

1363. **Eccles, J. C.** An electrical hypothesis of synaptic and neuromuscular transmission. *Nature, Lond.*, 1945, 156, 680-683.—The author offers an electrical theory of junctional transmission in which the sequence of events is envisaged as follows: "(1) Impulse in terminal nerve fibre generates a current which gives a diphasic effect at the junctional region of the effector cell with a total duration of probably not more than 1 m. sec. in mammalian muscle and spinal cord: (a) initial anodal focus with cathodal surround; (b) more intense cathodal focus with anodal surround. (2) This cathodal focus sets up a brief and intense local response at the junctional region. (3) From this local response a catelectrotonus spreads decrementally over the effector cell membrane. (4) A propagated impulse is set up in the effector cell if this catelectrotonus is above a critical value; if it is below, then as the local response subsides, the catelectrotonic surround decays passively." The initial assumptions of, the explanations offered by, and the possible tests of this hypothesis are discussed.—*A. C. Hoffman* (Tufts).

1364. **Grenell, R. G., & Burr, H. S.** Electrical correlates of peripheral nerve injury: a preliminary note. *Science*, 1946, 103, 48-49.—In experiments on rabbit sciatic nerves, the potential relationships between the outer limb surface and the nerve were investigated under normal conditions, after severing or crushing the nerve, and after procaine infiltration. In humans the ulnar nerve was procaine infiltrated. Records obtained on the rabbit preparations between outer limb surface and selected points along the nerve, both before and after nerve damage, showed that potential gradients along the nerve are

present. Potential differences recorded from the surface of the limb showed that the differences were correlated with the state of the nerve supplying the area. Functional nerve blocking (procaine infiltration) results in a shift in potential, in humans over a range of 50-60 mv in the surface EMF of the functionally disturbed area. It is clear from such experiments that the condition of the peripheral nerve is reflected in the changing surface potential differences.—*F. A. Mote* (Connecticut).

1365. **Gualtierotti, T.** Tentativi di analisi dei tracciati elettroencefalografici. (Analysis of electroencephalograms.) *Arch. Psicol. Neurol. Psichiat.*, 1945, 6, 195-205.—The author describes various types of EEG waves and discusses the theories used to explain them. Data from his own observations are analyzed.—*R. Calabresi* (Hunter).

1366. **Hsü, E. H., & Sherman, M.** The factorial analysis of the electroencephalogram. *J. Psychol.*, 1946, 21, 189-196.—"Records of one meter length from the occipital leads together with records made during hyperventilation of 50 children aged from 8 to 18 and 60 adults aged from 18 to 45 were measured and evaluated according to 22 criteria. Tetrachoric correlation coefficients were obtained and the matrix of intercorrelations was subjected to a centroid analysis, which gave rise to seven common factors. The simple structure revealed the identity of five of the factors which were as follows: Factor A, a factor comprising of slow potential activities; Factor B, an epileptic syndrome of both *grand mal* and *petit mal* types; Factor C, a psychomotor epileptiform syndrome of flat-topped waves and 6-per-second waves; Factor D, hyperventilation factor which revealed the hereditary constitutional syndrome of epilepsy; Factor E, a syndrome comprised chiefly of beta waves; Factor F, not clearly identified, although it might be an age factor; Factor G, a residual."—*R. B. Ammons* (Syracuse).

1367. **Hursh, J. B.** Origin of the spike and wave pattern of *petit mal* epilepsy; an electroencephalographic study. *Arch. Neurol. Psychiat., Chicago*, 1945, 53, 274-282.—Evidence obtained from the electroencephalographic records of two patients with almost complete section of the corpus callosum and evidence from other patients showing simultaneous onset of the spike and wave pattern in multiple leads indicated a subcortical origin of *petit mal* seizures. "The thalamus or the hypothalamus is considered as a tentative site for the pacemaker of the spike and wave complex."—*K. S. Wagoner* (DePauw).

1368. **Kellaway, P.** The Nobel prize in physiology and medicine 1944: an appreciation. *Canad. med. Ass. J.*, 1945, 53, 57-62.—A simplified description is given of the fundamental investigations on the electrophysiology of nervous tissue for which Dr. Erlanger and Dr. Gasser were awarded the Nobel prize.—*P. Kellaway* (McGill).

1369. **Kellaway, P.** Nervous transmission: I. The axon. *Rev. canad. Biol.*, 1945, 4, 295-320.—A review of studies of neural conduction, particularly as it is affected by experimental blocks, suggests that

in peripheral fiber propagation of the impulse depends on travelling electrical waves and that potentials in active tissue initiate activity in adjacent resting regions. 71-item bibliography.—D. K. Spelt (Mary Baldwin).

1370. Kornmüller, A. E. Über einige bei Willkürbewegungen und auf Sinnereize auftretende bioelektrische Erscheinungen der Hirnrinde des Menschen. (Some bioelectric manifestations of the human cerebral cortex during voluntary movements and under the influence of sensory stimulation.) *Z. Sinnesphysiol.*, 1940, 68, 117-150.—Monopolar recording of the EEG was used. During voluntary movement of the limbs or the fingers, there was a reduction of potential in the central region but no occipital change. During movement or cutaneous or auditory stimulation, the tracings of corresponding bilateral points were in synchrony. Voluntary ocular movements increased occipital potentials, as did intermittent visual stimulation (with bilateral synchronization). With less frequent visual stimulation, there appeared waves lacking the sinusoidal character of the alpha. With intermittent visual stimulation ranging from 7 to 26 per second, the occipital potential sometimes showed a corresponding frequency, persisting for several seconds after termination of the flickering light.—(Courtesy *Année psychol.*).

1371. Landau, E. La voie sensitive olfactive périphérique. (The peripheral sensory olfactory pathway.) *Conf. neurol., Basel*, 1942-1943, 5, 225-246.—See *Biol. Abstr.* 19: 21607.

1372. Levin, S., Katz, J., & Greenblatt, M. An electroencephalographic study of cases with syncope and related disorders. *Amer. J. Psychiat.*, 1945, 102, 301-304.—The authors present the EEG findings for 104 cases with dizzy spells, 114 cases with fainting spells, and 11 cases of fainting spells accompanied by rigidity. These cases were selected from a group of over 2,000 patients who were referred, during the last 5 years, to the EEG laboratory of the Boston Psychopathic Hospital. It was found that the rate of EEG abnormality in the fainting-spell group (11%) was no higher than that of a normal group, that the patients subject to dizzy spells had even a lower rate (4%) of EEG abnormality, but that the cases of fainting spells plus rigidity had a much higher incidence (45%) of abnormal findings. It is suggested that the last group might belong to the epileptic category. The authors conclude that repeated syncopal attacks do not produce EEG abnormality.—R. D. Weits (Jersey City, N. J.).

1373. Luneva, A. S. Vlianiye razdrzheniia I-i vetvi troinichogo nerva na potentsaly rogovitsy. (Stimulation of the trigeminal nerves and the electrical potential of the cornea.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 187-191.—L. A. Riggs (Brown).

1374. Martini, E. La regolazione diencefalica dell'attività nervosa. (The role of the diencephalon as a regulator of nervous activity.) *Arch. Psicol.*

Neurol. Psychiat., 1945, 6, 161-174.—Besides its role as the nervous center controlling vegetative functions, the diencephalon is closely connected with the rhythm of medullar and cortical functions. Experiments on electronarcosis suggest that the diencephalon operates through a mechanism of autoregulation and inhibition. Sleep, awareness of oneself, and basic mood in connection with psychomotor activity seem to be related to the diencephalon function. Also the temporal sequence of our inner and outer experience probably depends from nervous centers situated in the diencephalon. Clinical experience supports this hypothesis.—R. Calabresi (Hunter).

1375. Morrison, L. R. Histopathologic effect of anoxia on the central nervous system. *Arch. Neurol. Psychiat., Chicago*, 1946, 55, 1-34.—K. S. Wagoner (DePauw).

1376. Porta, V. La regolazione diencefalica dell'attività psichica. (The diencephalon as a regulator of psychic activity.) *Arch. Psicol. Neurol. Psychiat.*, 1945, 6, 175-194.—The author discusses clinical and pathological data and modern theories on sleep, consciousness, personal awareness, temporal orientation, and basic mood, all of them leading to the hypothesis of subcortical control of psychic activity. Recent contributions on the Korsakoff syndrome are analyzed, and a physiological explanation of psychopathological and neuropathological findings is attempted.—R. Calabresi (Hunter).

1377. Weiss, P. Experiments on cell and axon orientation in vitro: the role of colloidal exudates in tissue organization. *J. exp. Zool.*, 1945, 100, 353-386.—L. C. Mead (Tufts).

[See also abstracts 1382, 1384, 1386, 1427, 1432, 1433, 1443, 1456, 1460, 1509, 1521, 1528, 1546, 1617, 1718.]

RECEPTIVE AND PERCEPTUAL PROCESSES

1378. Akimochina, V. A. O lokalizatsii izmenenii elektricheskoi vzbudimosti zritel'nogo pribora vo vremia adaptatsii k temnote. (The localization of changes in the responsiveness to electrical stimulation during dark adaptation.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 125-127.—Patients with enucleated eyes were used in a study of the electrical sensitivity of the eye during light and dark adaptation.—L. A. Riggs (Brown).

1379. Allen, F. Production of difference tones. *Nature, Lond.*, 1945, 156, 84-85.—To produce difference tones for instructional demonstration, the author suggests connecting to a small loudspeaker two audio-frequency generators adjusted to the same high frequency. By gradually increasing the frequency of one generator, the pitch of the difference tone rises continuously to any height desired. Or, the frequency of both generators may be raised above the audible range leaving only the difference tone to be heard. In commenting on this article (same journal, p. 536), A. J. King points out that, since the

ear is nonlinear in its amplitude response, the difference tone will be present only in the ear if the loudspeaker is strictly linear, but present both in the air and in the ear when the loudspeaker is nonlinear.—A. C. Hoffman (Tufts).

1380. [Anon.] Research in the U. S. S. R. on the physiology of vision. *Nature, Lond.*, 1945, 156, 579.—Sixteen papers originally published in Russian are briefly abstracted. The topics covered are: optimal lighting conditions, visibility of traffic lights, effect of the number of stimuli on acuity, effect of extraneous stimuli on visual acuity and on critical flicker frequency, absolute sensitivity of the eye in ultraviolet light, color changes with distance, electrical phenomena in the eye and in the visual nervous system, and the excitability of the visual cortex.—A. C. Hoffman (Tufts).

1381. Beebe-Center, J. G., Mead, L. C., Wagoner, K. S., & Hoffman, A. C. Visual acuity and distance of observation. *J. exp. Psychol.*, 1945, 35, 473-484.—"Eight experiments on visual acuity were carried out at observation distances varying from about 30 feet to about two miles. The results show that for practical purposes visual acuity, defined in angular terms, may be considered to remain constant over this range of distances. . . . Failure in this experiment to find any marked decrement in acuity at large distances is interpreted as support for a peripheral theory of the Aubert-Foerster phenomenon, insofar as such a phenomenon is demonstrable."—D. W. Taylor (Stanford).

1382. Bender, M. B., & Furlow, L. T. Visual disturbances produced by bilateral lesions of the occipital lobes with central scotomas. *Arch. Neurol. Psychiat., Chicago*, 1945, 53, 165-170.—"A patient with bilateral lesions of the occipital lobe showed a series of visual disturbances due to loss of central vision in each eye. After he had been completely amaurotic, vision returned in the peripheral fields, and restitution continued to take place medially, terminating in bilateral large central scotomas." As recovery progressed, the patient showed defective color vision, little apperception of form, good perception of motion, and ability to see best in low illumination, indicating the loss of central vision. Psychological factors involved in the filling in of the visual field and the reorganization of the patient's field of vision are described.—K. S. Wagoner (DePauw).

1383. Bogoslovsky, A. I. Zavisimost' razlichitel'noi chuvstvitel'nosti glaza ot adaptatsii. (The dependence of brightness discrimination of the eye upon the state of adaptation.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 137-148.—L. A. Riggs (Brown).

1384. Bogoslovsky, A. I., & Ivanova, E. M. Elektricheskaiā chuvstvitel'nost' glaza do i posle enukleatsii. (The electrical sensitivity of the visual system before and after enucleation of the eye.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 129-136.—L. A. Riggs (Brown).

1385. Bogoslovsky, A. I., & Kravkov, S. V. Vliianie shuma aviatsionnogo motora na zrenie. (The influence of noise of an aircraft engine upon vision.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 69-75.—Studies are reported of visual efficiency after 20 to 30 minutes' stimulation by engine noise at a level of 105 to 110 db.—L. A. Riggs (Brown).

1386. Bronstein, A. I., Zimkin, N. V., & Lebedinsky, A. V. Rol' tsentral'noi nervnoi sistemy v favlensiiakh adaptatsii k usloviām osveshcheniā pri elektricheskom razdrazhenii razlichnykh elementov zritel'nogo analizatora. (The rôle of the central nervous system in processes of adaptation under electrical stimulation of various elements of our visual system.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 117-124.—A comparison is made between electrical stimulation of the cerebral cortex and of the retinal neurones.—L. A. Riggs (Brown).

1387. Carhart, R. An improved method for classifying audiograms. *Laryngoscope, St Louis*, 1945, 55, 640-662.—The Deshon System of classifying pure tone audiograms for purposes of study and analysis is described. An audiogram is first assigned to one of five major categories or basic curve types, indicated by letter. Severity of loss is recorded as a subscript derived by noting the decibel difference between zero (normal threshold) and the point of intersection of the 1,024 cycle axis by the curve of best fit. Deviations from the basic pattern are indicated by modifier symbols (letters from a code) placed before or after the major category symbol. The position and magnitude of each deviation is represented by appropriate subscripts and superscripts attached to the notation symbolizing the deviation. "The method of notation, of symbolizing the classification, allows quick sorting of audiograms either into broad groups or into finer subdivisions. . . . It allows an audiogram curve to be redrawn approximately from its code notation."—A. C. Hoffman (Tufts).

1388. Clark, I. Vision problems of military students with heavy academic loads. *Eye, Ear, Nose Thr. Mon.*, 1945, 24, 332-335; 345.—The advantages of careful and detailed examination of ocular functions early in life and especially before matriculation are stressed. An examination of 182 university students (Ohio State) leads the author to conclude that visual inefficiency is widespread among university students. The ophthalmological and optometric anomalies observed in 66 of these men are noted.—A. C. Hoffman (Tufts).

1389. Crouch, C. L. The relation between illumination and vision. *Illum. Engng, N. Y.*, 1945, 40, 747-784.—This is a general summary of experimental data showing the relationship between visual acuity, contrast of object with its background, speed of vision, and brightness. Data are also presented on visual efficiency as related to age, subnormal vision, glare, and state of adaptation. The data are

presented in 32 charts and 3 tables. A comprehensive bibliography is included.—A. Chapanis (U. S. Army Air Forces).

1390. Culbertson, J. T. Temporal change in perceptual space. *J. Psychol.*, 1946, 21, 3-23.—"World lines" are formed in a four-dimensional space from entities, such as electrons and protons, "extending" in time. "The problem . . . is to show how the sense world of an organism, the perceptual space it perceives and the qualities in that space and their temporal change, can be derived from an analysis of the relations between these world lines, that is, to set up whatever definitions and postulates may be necessary so that from certain world lines related together in certain ways may be derived definite perceptual spaces containing definite qualitative differences, which change in a definite way." An outline of a system developed along these lines is presented.—R. B. Ammons (Syracuse).

1391. Davidov, V. G. Vliianie odnostonnogo oblucheniia kozhnoi poverkhnosti ul'trafioletovym svetom na svetovuiu chuvstvitelnost' perifericheskogo zreniia. (The influence upon the sensitivity of peripheral vision of irradiating one side of the skin surface of the body with ultraviolet rays.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 81-86.—L. A. Riggs (Brown).

1392. Dzidzishvili, N. N. O vliianii intensivnosti nalichnogo svetovogo razdrazheniia odnogo glaza na razlichitel'nuu chuvstvitelnost' drugogo. (On the influence of intensity of continuous illumination of one eye upon the brightness discrimination of the other.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 43-46.—L. A. Riggs (Brown).

1393. Fedorov, N. T. K voprosu o vozmozhnom mekhanizme i lokalizatsii nekotorykh zritel'nykh funktsii. (The mechanism and localization of certain visual functions.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 149-159.—L. A. Riggs (Brown).

1394. Fedorova, V. I. Izmenenie tsvetovogo tona, nasyshchennosti i iarkosti spektral'nykh stimulov v rezul'tate khromaticheskoi adaptatsii. (Changes in hue, saturation, and brightness of spectral lights following chromatic adaptation.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 161-168.—L. A. Riggs (Brown).

1395. Galochkina, L. P. Induktivnye protsessy v zritel'nom apparate v ikh zavisimosti ot tsvetnosti razdrazhitel'ei, anomalii tsvetnogo zreniia i nekotorykh farmakologicheskikh vozdeistvii. (The inductive processes in the organ of seeing in their dependence on colored lights, anomalies of color vision, and certain pharmacological procedures.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 17-24.—Changes in the sensitivity of one part of the retina were observed when another retinal region was stimulated. The color of the stimulus and the intensity of the secondary light were varied. Also investigated were the effects of adrenaline and

pilocarpine upon the observed changes in sensitivity.—L. A. Riggs (Brown).

1396. Gassovsky, L. N. Zasvet setchatki nena-bludaruushchego glaza pri rabote s monokul'arnymi opticheskimi priborami. (Illumination of the retina of the non-observing eye during the use of monocular optical instruments.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 33-42.—A study is reported of the efficiency of observing with one eye while the other is being subjected to continuous illumination.—L. A. Riggs (Brown).

1397. Hall, A. R., & Blakeslee, A. F. Effect of smoking on taste thresholds for phenyl-thiocarbamide (PTC). *Proc. nat. Acad. Sci., Wash.*, 1945, 31, 390-396.—Sixty adult subjects, including 28 nonsmokers, were used to study the effect of controlled cigarette smoking upon PTC thresholds. Selected results reveal that (1) 73% required stronger and 20% required weaker solutions after smoking; (2) 58% of the subjects returned to their "resting" thresholds within one hour after smoking; (3) nicotine seems early to act as a stimulant and later as a depressant upon the neural mechanisms operative in gustation. A brief review of the literature is given.—L. A. Pennington (Illinois).

1398. Hardy, L. H. Standard illuminants in relation to color-testing procedures. *Arch. Ophthalmol., Chicago*, 1945, 34, 278-282.—Three factors in color testing are: illumination, the subject tested, and the material and procedures of the test. When the first is not standardized, results are a function of illumination as much as of the subject's proficiency. Standardized artificial illumination, approximating the I.C.I. illuminant C, must be used if tests are to yield valid conclusions concerning color vision.—M. R. Stoll (Amer. Opt. Co.).

1399. Hardy, L. H., Rand, G., & Rittler, M. C. Tests for detection and analysis of color blindness. I. An evaluation of the Ishihara Test. *Arch. Ophthalmol., Chicago*, 1945, 34, 295-302.—The principle of polychromatic plates for color vision testing is discussed, and a critical history of the various Ishihara editions is given. On the basis of a battery of 7 tests, 106 color defective subjects were grouped as anomalous trichromats (deuteranomalous or protanomalous), dichromats (deuteranopes or protanopes), or low discriminators properly classed either as deficient or "low normal." Responses of these subjects to 13 plates of the Ishihara (5th edition) are recorded and analyzed. Properly administered, the test screens color defectives from normals, but it does not provide adequate data for classification of deficiencies. Plate 4 is practically perfect when used under proper illumination, but for deuteranomalous subjects its efficiency drops to 43% with ordinary mazda light.—M. R. Stoll (Amer. Opt. Co.).

1400. Hartridge, H., Phelps, J., & Weil, R. An illusion of size. *Nature, Lond.*, 1945, 156, 118; 269; 636-637.—These articles comment on a previous article (see 19: 2880) in which it was reported that the newer of two coins appeared to be the smaller. The first three articles report conflicting results of

tests of this "illusion" and suggest that the effect may have been due to actual physical differences (change in mintage specifications), to differences in the direction (perpendicular or oblique) of the light source, and/or to the presence of rounded or sharp raised edges on the coins. The fourth article reports the results of an experiment in which 19 observers made 8 observations, four each in perpendicular and in oblique illumination (red, blue, green, and neutral light), of two pairs of coins. One pair was normal, the other had the edges and heads filed off. One member of each pair was polished, the other was dull. In oblique lighting the brighter coin, filed or normal, usually appeared to be the larger. In perpendicular lighting, the dull coins appeared to be the larger, the effect with the filed coins being much more pronounced than with the normal.—A. C. Hoffman (Tufts).

1401. Hipskind, M. M. War injuries to the auditory apparatus; clinical and audiometric observations. *Laryngoscope, St Louis*, 1945, 55, 678-705.—Audiograms of combat personnel exposed to battle noises and later tested at a military general hospital are classified in this preliminary report according to the presence or absence of battle wounds, prehistory of aural disease, presence or absence of aural complaints either objective or subjective, and previous history of exposure to noises in either army or civilian life. When threshold anomalies were found, they were usually at 4,096 cycles. In cases complaining of tinnitus, the maximal threshold rise was usually at 11,584 cycles. No relationship was noted between the degree of objective eardrum injury and the degree of hearing impairment.—A. C. Hoffman (Tufts).

1402. Hoisington, L. B. An experimental program. *Proc. Okla. Acad. Sci.*, 1945, 25, 62-66.—A description of a research program at the University of Oklahoma is given. The roles of sensory experience and muscular adjustments are discussed. One typical study, dealing with visual perception, is briefly presented. The following conclusions are drawn: (1) Each perception involves specific adjustments which are dependent upon co-operation of sensory and muscle systems. (2) Specific adjustments are determined partly by broad functional organization and partly by externally aroused sensory experience, which thus assumes a very important role in overt behavior, ideation, and knowledge. (3) Verbalization issues from muscular adjustment. (4) Once an adjustment has developed in relation to a perception, it may arise later as ideation and result in the same overt behavior. (5) Learning consists in the development of appropriate adjustments related to perceptions and to each other.—M. O. Wilson (Oklahoma).

1403. ĭakovleva, S. P. Vliĭanie instillatsii pilokarpina na uravnenie reĭefu. (The effect of an injection of pilocarpine upon the Rayleigh comparison.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 97-98.—L. A. Riggs (Brown).

1404. Kekcheyev, K. Conditioned excitors and human sense organs. *Nature, Lond.*, 1945, 156, 573-574.—Russian experiments are briefly reviewed in which the sensitivity of human sense organs was modified by extramodal or extraneous conditioning stimuli. A phrase or sentence was read aloud while the face was rubbed with a cold, wet towel; after conditioning, the reading of the phrase was accompanied by increased scotopic sensitivity. The idea of the bright light of automobile headlights was accompanied by increased auditory sensitivity; emotionally pleasant ideas, by increased sensitivity of all the sense organs. The idea of weak or of strong excitors produced the same effect respectively as the weak or strong excitors themselves. "We now find that the idea of red or yellow light increases the sensitivity of the eye to its complement (green or yellow light), but that the idea of the latter does not have the same effect."—A. C. Hoffman (Tufts).

1405. Kotlĭarevskaiĭ, S. Z. K kharakteristike tsvetovoi astenopii. (The nature of color weakness.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 107-112.—L. A. Riggs (Brown).

1406. Kravkov, S. V. O svĭaziakh tsvetnogo zreniĭa s vegetativnoi nervnoi sistemoi. (The dependence of our color vision upon the autonomic nervous system.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 87-95.—Effects upon color vision of injections of sympathicomimetic and parasympathicomimetic substances are described.—L. A. Riggs (Brown).

1407. Lazarev, P. P. Ob ěffekte landua-vuda. (On the Landois-Wood effect.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 47-52.—L. A. Riggs (Brown).

1408. Lifschitz, N. N. O binokulĭarnom slozhenii tsvetov. (Binocular color mixture.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 99-106.—A special adaptation of Helmholtz' color mixing apparatus was used for binocular mixture of colors. Monocular and binocular matches were achieved for monochromatic test lights from 530 to 640 mμ in wave length. Two monochromatic standards, one below and the other above this range, were mixed monocularly or binocularly in varying proportions to match each test light.—L. A. Riggs (Brown).

1409. Luckiesh, M., & Taylor, A. H. Radiant energy from fluorescent lamps. *Illum. Engng, N. Y.*, 1945, 40, 77-88.—Fluorescent lamps emit about the same amount of ultraviolet and infrared energy per foot-candle of visible light as does direct sunlight. There is no proof that the spectral distribution of visible energy in any of the common illuminants used for general lighting is detrimental to the eyes or visual sense. For these reasons, Harmon's data on the harmfulness of fluorescent lighting (see 20: 680) may be entirely explained as due to intense glare.—A. Chapanis (U. S. Army Air Forces).

1410. Lŭdtke, H. Sinnesphysiologie und Entwicklungsgeschichte am Auge des Rŭckenschwim-

mers *Notonecta glauca*. (The sensory physiology and development of the eye of the back swimmer *Notonecta glauca*.) *Biol. Zbl.*, 1941, 62, 220-226.—The behavior of the larvae was examined soon after the differentiation of the 3 ocular zones. The ommatidia of the central region were found to be about 11 times more sensitive to light than were those just peripheral to the line of fixation. In the course of development, some ommatidia migrate from the anterior zone through the central zone to the posterior zone, with a parallel physiological shift in function. There is a differentiation in terms of color vision: 996 ommatidia, located in the posterodorsal region, contain a brown pigment and mediate chromatic vision; 2,500 ommatidia, in the anteroventral region, contain a red pigment and are color-blind. Colors other than red are perceived by receptors with a brown pigment, located in a narrow band at the boundary between these 2 zones.—(Courtesy *Année psychol.*)

1411. Machle, W. Effects of gun blasts on hearing. *Arch. Otolaryng.*, Chicago, 1945, 42, 164-168.—Audiograms were taken of 45 gunnery instructors after frequent exposure to blasts of 37 or 75 mm. guns and of 12 experimental subjects before and after exposure to 1-8 blasts per day. It was found that acuity loss was first evident at the frequencies 2896 to 5792 and later appeared at the adjacent lower and higher frequencies, but hearing of low-pitched tones was relatively unaffected. The acoustic loss on repeated exposure to gun blasts appeared to be cumulative, perhaps because of the incompleteness of recovery during the 24-hour interval between exposures.—A. C. Hoffman (Tufts).

1412. Meshkov, V. V., & Briullova, N. B. O metodike ucheta delstvii blezkosti na razlichimost' ob'ektov. (A method of measuring the blinding effect of a stimulating light.) *Probl. physiol. Opt.*, *Acad. Sci. U. S. S. R.*, 1941, 1, 53-68.—The magnitude of glare is related to the brightness contrast between the object and its background, the angular size of the object, and the state of adaptation of the eye.—L. A. Riggs (Brown).

1413. Morgan, L. D. There is something wrong with our fluorescent lighting applications. *Illum. Engng. N. Y.*, 1945, 40, 275-289.—Numerous and wide-spread complaints of eyestrain from individuals working under fluorescent lighting installations suggest that this type of light source or the method of its use may be harmful. Any of the following factors may account for these difficulties: (1) ultraviolet radiation, (2) glare, (3) spectral energy distribution in the visible range, and (4) stroboscopic effects and flicker. Four pages of discussion.—A. Chapanis (U. S. Army Air Forces).

1414. Morrison, L. M., & Spiegel, E. A. Demonstration of visceral pain by determination of skin potentials. *Ann. intern. Med.*, 1945, 22, 827-831.—The purpose of this study was to determine whether the viscerogalvanic reaction could aid differential diagnosis between pain in organic and in nonorganic disorders. The subjects included cases of proved

organic gastrointestinal disease, neurotics with vague pains, persons who had had organic disease but had been symptom-free for several months, and normal persons. In 74% of the organic cases, potentials in the respective dermatomes were increased 10 or more mv. over the rest of the body. Two of the 27 cases with psychogenic pain or with healed organic disease showed increases of 8 or 9 mv. while the remainder had no increase. Increase in potentials of 10 mv. or more in the dermatomes corresponding to an organ causing pain supports the assumption of organic disease, but lack of increased potentials does not necessarily exclude it. After clinical healing, abnormal impulses may still originate in the organ and maintain a tonic excitation of spinal segmental centers, although these impulses may be below the threshold of the higher centers on which pain depends.—M. E. Morse (Baltimore, Md.).

1415. Nickerson, D. Munsell standard colors specified for four illuminants. *Illum. Engng. N. Y.*, 1945, 40, 159-171.—Tristimulus specifications are given for the 421 Munsell standard color samples under four illuminants: I.C.I. illuminant A, I.C.I. illuminant C, illuminant D (representative of a lightly overcast north sky), and illuminant S (representative of an extremely blue sky).—A. Chapanis (U. S. Army Air Forces).

1416. Nickerson, D. Spacing of the Munsell colors. *Illum. Engng. N. Y.*, 1945, 40, 373-386.—This is a summary of the recommendations made by the O.S.A. Subcommittee on the Spacing of the Munsell Colors and reported elsewhere (see 17: 4072).—A. Chapanis (U. S. Army Air Forces).

1417. Ogle, K. N., & Ellerbrock, V. J. Stereoscopic sensitivity in the space eikonometer. *Arch. Ophthalm.*, Chicago, 1945, 34, 303-310.—The space eikonometer, which is briefly described, provides for measurement of aniseikonia in horizontal, vertical, or oblique meridians. Differences in these meridians produce, respectively, apparent tilting about a vertical axis of the plane determined by two vertical lines, apparent rotation of a cross about a vertical axis, and apparent rotation of a cross about a horizontal axis. Sensitivity of measurements in the horizontal was determined for different separations of the vertical lines and with and without a cross in the field of view. No significant differences were found when separations were within a range of 7° to 14°. For only one of three observers was any significant difference associated with introduction of the cross. When sensitivity to vertical size differences was determined, addition of vertical lines in the field of view appeared to increase sensitivity, which was only about three fourths the sensitivity for horizontal disparities. Analysis of oblique effects indicates that the apparent tilt of the cross is only relative to apparent inclination of vertical lines. Vertical lines through the center of the cross appeared to enhance sensitivity; substitution of a Maltese-like form was also advantageous. Tests at near proved less sensitive than corresponding tests for distance.—M. R. Stoll (Amer. Opt. Co.).

1418. Parsons, C. M., & Goetzel, F. R. Effect of induced pain on pain threshold. *Proc. Soc. exp. Biol., N. Y.*, 1945, 60, 327-329.—In human subjects, severe pain was induced by spraying ethyl-chloride on 1 square inch of the anterior surface of the tibia for 20 minutes. Then an alternating current with graduated increases in voltage was applied to one of the subject's teeth through a metal filling after delays of 30, 60, 90, and 120 minutes beyond the time of induced pain. The voltage reading at which the patient experienced a painful sensation was noted. Induced pain produces long-lasting, pronounced analgesic effects.—C. P. Stone (Stanford).

1419. Pascal, J. I. Cardinal points in the static and in the dynamic eye. *Arch. Ophthalm., Chicago*, 1945, 34, 319-320.—A mnemonic system for remembering the absolute distances between various pairs of principal points is provided by the bezene ring formation. A modification of this ring provides an easy method of recognizing the changes in relationship which are introduced by accommodation.—M. R. Stoll (Amer. Opt. Co.).

1420. Perlman, H. B. Stroboscopic examination of the ear. *Ann. Otol., etc., St. Louis*, 1945, 54, 483-494.—Methods of observing the movements of the conducting mechanisms of the ear are reviewed. A sound source and stroboscopic method used with a Siegle otoscope are described for examination of the conducting apparatus in freshly excised human temporal bones or in the living ear. Movements of the eardrum and of the malleus to a loud 60-cycle tone observed with this method in the normal and in some pathological ears are described.—A. C. Hoffman (Tufts).

1421. Perlman, H. B. Physics of the conduction apparatus. *Laryngoscope, St. Louis*, 1945, 55, 337-348.—Some physical properties of the human conducting mechanism in the middle ear of freshly excised temporal bones were determined when displaced by a continuous sound, a shock wave, a small hook, or by slow pressure changes produced with a hand syringe. The resonance frequency was found to be around 700-1000 cycles per second. At the malleus, the damping factor is between 0.5 and 0.25 n. The effective mass of the conducting apparatus is a modification of the actual weight of the component parts by the particular suspension of the ossicular chain and by its manner of movement in response to various stimulating frequencies. Oscillation of the ossicular chain is distorted, moving more readily toward the negative than toward the positive side of center. The contraction of the middle ear muscles not only reduces the amplitude of acoustic oscillation but reduces it asymmetrically (moves axis of rotation medially, particularly during the outward or negative phase of the oscillation).—A. C. Hoffman (Tufts).

1422. Pickford, R. W. Darkened violet in colour vision. *Nature, Lond.*, 1945, 156, 506-507.—A test of sensitivity to red, orange, yellow, yellow-green, green, blue-green, blue, violet and purple was carried

out on 103 men and 104 women, excluding all red-green blind and red or green anomalous subjects. Three women and three men had the violet darkened by more than three times the standard deviation of brightness levels of violet for the remaining subjects; there were about 10% who had marked yellow-blue weaknesses. Six of the yellow-blue weak subjects were those with darkened violet. Those with darkened violet are not blue-blind but are yellow-blue defectives with violet and blue of diminished brightness.—A. C. Hoffman (Tufts).

1423. Pollak, H., & Wilson, D. G. Absolute and differential light sensitivity of the dark-adapting eye. *Nature, Lond.*, 1945, 156, 299-300.—"We have carried out a comparative study of the absolute and differential threshold of the dark-adapting eye in selected subjects with 'good' and 'poor' night vision respectively, and our observations indicate first, that, in observers with identical light-threshold recovery curves, marked differences in contrast sensitivity occur, and appear to be related to their 'ability to see in the dark'; secondly, treatment of the 'poor' observer with vitamin A together with brewers' yeast produced a striking improvement in contrast sensitivity with little effect on the light threshold." The authors point out that poor night vision should not be tacitly attributed to other than visual factors before testing contrast sensitivity.—A. C. Hoffman (Tufts).

1424. Poos, E. E. The war deafened and their rehabilitation. *Eye, Ear, Nose Thr. Mon.*, 1945, 24, 329-331.—The circumstances in the various military services which have caused deafness and the rehabilitation program for the aurally disabled are briefly described. Some suggestions which may assist readjustment of the war deafened to civilian life are offered: "Show him how glad you are to have him back. . . . Don't pry into his personal experiences. . . . focus on what is left and not on what is lost. . . . Expect him to be different. . . . Be certain he gets good professional medical care."—A. C. Hoffman (Tufts).

1425. Priest, R. E. Tests for unilateral deafness. *Arch. Otolaryng., Chicago*, 1945, 42, 138-143.—This article evaluates specific procedures for testing severe or total unilateral loss of hearing in a military hospital examination routine. Those found to be useful were: the shadow curve audiogram, Wells modification of the Stenger test, Lombard reading test, and the Marx test. Certain other procedures were used as auxiliary tests: Becker watch and tube test, Hummel double conversation test, Becker bone and air condition test, Teal test, and Bárány caloric test. Tests discarded as unsuitable were: Chimani-Moos test, Wotzilka lid-movement reflex test, Nadoleczny lip-reading test, and those involving ostensible occlusion followed by surreptitious opening of the auditory canals.—A. C. Hoffman (Tufts).

1426. Rabkin, E. B. Pigmentnyi metod opredeleniia tsvetovykh porogov. (A pigment method for testing color vision.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 113-115.—L. A. Riggs (Brown).

1427. Ray, B. S., & Wolff, H. G. Studies on pain; spread of pain; evidence on site of spread within the neuraxis of effects of painful stimulation. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 257-261.—"Patients with hemianalgesia following high thoracic section of the ventrolateral portion of the cord on one side perceived pain on the normally innervated side of the body when the analgesic side was noxiously and intensely stimulated. Pain was not perceived on the analgesic side when the normally innervated side was noxiously stimulated." From these observations the authors infer that "the spread of pain of high intensity from one part of the body to adjacent regions on the same side and on the opposite side is a sequel of the spread of excitatory processes within the neural segments of the cord."—K. S. Wagoner (DePauw).

1428. Shilling, C. W. Aero-otitis media and loss of auditory acuity in submarine escape training. *Arch. Otolaryng.*, Chicago, 1945, 42, 169-173.—Of 90 submarine school candidates subjected to a pressure test of 50 pounds (22.5 kg. or 3.4 atmospheres), about 30% reported pain in the ear. The audiograms of about one third of this latter group indicated acuity losses for tones of 2046 and above ranging from 5 to 25 decibels, but relatively no loss for low tones.—A. C. Hoffman (Tufts).

1429. Slauer, R. G. The confusion in brightness thinking. *Illum. Engng.*, N. Y., 1945, 40, 89-105.—The author raises some questions regarding fundamental considerations which form the basis of present lighting practice. The gist of his critique concerns (1) the confusion regarding brightness terms, their relation to each other, and methods of measuring brightness; (2) oversimplification of the relationship between brightness and seeing, and the assumption that data from circumscribed experimental studies are applicable to general lighting problems; and (3) the belief that indoor lighting should approximate natural lighting. Four pages of discussion.—A. Chapanis (U. S. Army Air Forces).

1430. Smith, W. Report on ocular reconditioning. *Amer. J. Optom.*, 1945, 22, 499-533.—This report is based on a total of 368 cases of refractive anomalies, 125 cases with deficiencies in color vision, and 58 cases of muscle imbalance. Routine refraction together with added tests and a trial visual training period provided bases for estimating the probable advantages of training. Training techniques are briefly described as applied for correction of the different limitations. Originality is claimed for some of these. Essential data are reported on each of a fairly large series of representative cases, most of whom showed considerable gains in acuity or in color recognition. These cases were selected from among those originally considered to be least promising.—M. R. Stoll (Amer. Opt. Co.).

1431. Sorsby, A., & O'Connor, A. D. Measurements of the diameters of the living eye by means of X-rays. *Nature, Lond.*, 1945, 156, 779-780.—A technique is described for measuring in the living eye its axial length or any selected diameter whose

ends abut on the retina. A beam of X-rays directed into the dark-adapted eye at right angles to the diameter to be measured is moved from side to side until the reported sensation is that of a point of light. This position for both poles of the diameter is marked on a film introduced in front of the eye. The distance between the two exposures gives the length of the diameter being measured. Sample X-ray measurements of five eyes generally confirmed the average anatomically determined measurements (the schematic eye) but showed considerable individual variation.—A. C. Hoffman (Tufts).

1432. Stone, L. S., & Ellison, F. S. Return of vision in eyes exchanged between adult salamanders of different species. *J. exp. Zool.*, 1945, 100, 217-227.—The eyes were exchanged between adult salamanders of entirely different species, *Amblystoma punctatum* and *Triturus viridescens*, but a successful exchange was made only in the case of the *Triturus* with an *Amblystoma* eye, where recovery occurred as in homoplastic transplantations. The retina degenerated except at the ciliary margin from which a new retina regenerated. Later a new optic nerve connected with the brain. The pupillary light reflex, as found in normal *Amblystoma*, was maintained in some cases from the day of operation. A lure outside the aquarium presented successively in the four quadrants of the visual field elicited pursuit and snapping responses dependent upon the transplanted eye. Visual response of the *Triturus* host was of a higher degree with the *Amblystoma* eye than in the normal donor; it was lower than in the case of a *Triturus* eye homoplastically grafted.—L. C. Mead (Tufts).

1433. Streiff, J. Zum Verständnis des natürlichen Sehens mit beiden Augen und zu den neueren Vorstellungen über die Vertretung ihrer Anteile an der Calcarinarinde beider Hemisphären. (Toward an understanding of normal binocular vision and of recent theories of binocular representation at the calcarine fissure of both hemispheres.) *Confinia neurol., Basel*, 1942, 5, 181-201.—See *Biol. Abstr.* 20: 598.

1434. Sweetland, A. Fluctuation of sensation of liminal visual stimuli. *J. exp. Psychol.*, 1945, 35, 459-472.—A modified form of the Masson disk was used in an investigation of the relation between the fluctuation of sensation of liminal visual stimuli and the amount of eye movement. "Few reliable differences in means . . . were obtained, but nevertheless certain persistent effects occurred. These were: (a) The introduction of unlimited eye-movement caused an increase in the average period of sensibility when compared with the situation where no eye-movement was used. The use of limited eye-movement tended to show the opposite effect. (b) The introduction of eye-movement of either type caused a decrease in the average period of insensibility. . . ." It was found that with 4 of the 5 subjects the relation between the ratio of the mean sensible to the mean insensible period and the intensity of the stimulus could be expressed by a simple exponential equation in which

both constants varied from subject to subject.—*D. W. Taylor* (Stanford).

1435. Teplov, B. M. K voprosu ob induktivnom izmenenii absolūtnoi svetovoi chuvstvitel'nosti. (On the question of the induced change in the absolute threshold for light.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 7-15.—Changes were observed in the absolute threshold for a test light as a result of bringing a second light into the field of view. The effects of distance, intensity, and other factors were evaluated.—*L. A. Riggs* (Brown).

1436. Tonner, F. Die Messung der Empfindungsfläche und Sehschärfe unter variablen Bedingungen im gleichen Versuch. (The measurement of sensory surface and visual acuity under variable conditions in the same experiment.) *Pflüg. Arch. ges. Physiol.*, 1943, 247, 149-155.—A method is described by which visual acuity, the size of the sensory surface, and the diameter of a cone are measured in a living eye. Punctiform light stimuli, variable as to color and intervening distance, are provided by holes in the wall of an internally illuminated box. (1) Visual acuity is measured in terms of the smallest distance at which two points do not yet appear to fuse; (2) the diameter of the sensory surface, which as a rule is the same as the diameter of the excitation surface, is measured in terms of the distance between the centers of the two luminous points when moved together until they barely appear to touch each other; and (3) the diameter of a cone is measured in terms of the angle at which the displacement of the middle one of three light points is just noticeable. All these measurements are carried out with the use of the consensual pupillary reflex and without any changes in the illumination or in the accommodation of the measured eye.—*F. C. Sumner* (Howard).

1437. Tonner, F. Die sphärische Aberration als begrenzender Faktor der Abbildungsschärfe. (Spherical aberration as a limiting factor in the sharpness of the physical image thrown upon the retina.) *Pflüg. Arch. ges. Physiol.*, 1943, 247, 160-167.—Visual acuity depends, among other things, on the sensory surface of the punctiform object. The latter, which is the physical image as thrown upon the retina, depends not only on the size of the physical image of that point but also on distortions undergone by the physical image in passing through the media of the accessory apparatus of the eye: marginal diffraction, width of pupil, chromatic aberration, spherical aberration, and the Tyndall effect. Measurements show that the size of sensory surface is most consistently dependent on the width of the pupil, that when the pupil diameter is smaller than 4.5 mm. the size of the excitation surface is independent of the wave length of the light stimulus, that in far vision the spherical aberration becomes a limiting factor for all pupil widths down to 4.5 mm., that in near vision this spherical aberration is a limiting factor even for essentially narrower pupils, and that in the case of smaller pupil diameters visual acuity is obviously limited to a somewhat even extent by marginal diffraction, Tyndall diffraction, and spherical aberration.—*F. C. Sumner* (Howard).

1438. Tonner, F., & Weber, H. H. Die Grundlagen der Deutung der Sehschärfe. (Fundamentals of an interpretation of visual acuity.) *Pflüg. Arch. ges. Physiol.*, 1943, 247, 143-148.—According to von Frey, the distance separating two tactual stimulus points is the criterion for the distance separating the sensory cells. The definition of visual acuity, modelled in the past after that of tactual acuity, rests on two completely unproven assumptions: the distance separating two stimulus points on the retina and the fineness of the cone mosaic. Instead of deducing these unknown factors about the retina from the limen of two-point visual discrimination, it appears necessary to proceed the reverse way, i.e., to study the cone mosaic. It is possible that a punctiform object sets more than one cone in excitation, that the minimal intermediate "space" between two stimulated points on the retina may embrace several cones, in which cases the mosaic would be finer than necessary. It is probable that there exists not a one-fold but a manifold mosaic somewhat in analogy to the distributions of cold, warm, pressure, and pain endings inasmuch as the eye not only senses light intensities but also wave lengths. Either the same cone must sense different light-energies as well as intensities, or else there are specific endings for each. It is certain that visual acuity depends on color, brightness, and contrast; it is assumed as certain that visual acuity is influenced by the width of the pupil. It is proposed to measure for a cone the magnitude of its sensory surface, its visual acuity, and its effective diameter with variation of brightness, contrast, color, and pupil width. It is further proposed to ascertain the magnitude of the surface which is set in excitation on the retina by a strictly punctiform object.—*F. C. Sumner* (Howard).

1439. Weinberg, W. B., & Lapinskaia, E. A. Issledovanie ostroty zreniia pri nizkikh tsvetnykh osveshchennostiakh. (A study of visual acuity under weak colored illumination.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 169-171.—*L. A. Riggs* (Brown).

1440. Wertham, F. A psychosomatic study of myself. *J. clin. Psychopath. Psychother.*, 1945, 7, 371-382.—This is a short description of the author's reaction to the pain resulting from thrombophlebitis and two operations under scopolamine. Ten pages are devoted to discussion and elaboration by other individuals.—*C. E. Henry* (U. S. Naval Reserve).

1441. Willmer, E. N., & Wright, W. D. Colour sensitivity of the fovea centralis. *Nature, Lond.*, 1945, 156, 119-121.—Curves of color matching, hue discrimination, and luminosity measurements are presented for a test field subtending about 20' of arc at the center of the fovea. All the monochromatic spectral colors could be matched by positive mixtures of 0.65 μ and 0.46 μ (the matching stimuli used). "With a white stimulus having a colour temperature of 4800° K, the neutral point for the central fovea was located at a wave-length of 0.578 μ ." The luminosity curve for the 20' field was similar to that for a 2° field, except for a slight hump

in the region of 0.61μ and reduced luminosity values (about one-half) at the short wave-lengths. Conversion of the color matching coefficients into luminosity units resulted in curves tentatively regarded as representing the spectral sensitivities of the two foveal receptor systems usually derived from the Young-Helmholtz theory—the 0.46μ curve corresponding to the 'green' curve, the 0.65μ curve having a maximum at 0.60μ though more irregular than the 'red' curve. The shape of the hue discrimination curve was very different from that for normal vision with a 2° field; it corresponded to the probable discrimination of the tritanope—good in the yellow portion, very poor in the blue-green. It is concluded that the central fovea is dichromatic and tritanopic.—A. C. Hoffman (Tufts).

1442. Woods, A. C. Report from the Wilmer Institute on the results obtained in the treatment of myopia by visual training. *Amer. J. Ophthalm.*, 1946, 29, 28-57.—Careful tests of 103 selected myopic patients who had submitted to a visual training program showed that, while the training may have had psychologic value in adjusting individuals to their visual handicap, the training was of no value in the treatment of myopia.—D. J. Shaad (Kansas City, Kans.).

1443. Yacorzynski, G. K., & Davis, L. Studies of the sensation of vibration: III. Evidence for cortical areas in inhibition and mediation of tickle. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 355-357.—"Of three patients with lesions of the right frontal lobe who were examined, the results for one lead us to conclude that two areas are present in the cortex in the mediation of tickle: One area is the primary tickle center, and the other area inhibits this center."—K. S. Wagoner (DePauw).

[See also abstracts 1332, 1358, 1370, 1373, 1466, 1467, 1468, 1471, 1472, 1476, 1506, 1548, 1635, 1647, 1649, 1653, 1663, 1666, 1715, 1716.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

1444. [Anon.] Research in the U. S. S. R. on conditioned reflexes. *Nature, Lond.*, 1945, 156, 455.—Russian publications from Pavlov's laboratory are briefly abstracted. Studies have been made of the strong type of nervous system (conditioned reflexes are readily developed) and of the weak type (conditioned reflexes are less strongly developed and more easily extinguished); the reciprocal relationships between symmetrically opposite areas of the cortex; the time cortical cells take to recover full excitability after stimulation; and the speed and facility with which excitation and inhibition of nervous processes may be developed.—A. C. Hoffman (Tufts).

1445. Bratbak, J. Eidetiske bilder. (Eidetic imagery.) *Norsk ped. Tidskr.*, 1944, 28, 64-68.

1446. Dand, A. 'Reward' and 'punishment' in learning. *Brit. J. Psychol.*, 1946, 36, 83-87.—The experiment described in this paper was designed to test Thorndike's conclusions from his experiments on human learning that a right response to a situation, rewarded by the announcement of right, produces learning by strengthening the connection between situation and response, whereas a wrong response, followed by the announcement of wrong, does nothing to weaken the connection between the situation and response. The results here described contravert this conclusion. They suggest that the amount of material used by Thorndike was so great that much incomplete learning must have taken place; and his subjects repeated their wrong responses in order to clear up their doubts about them. If the amount and type of material are well within the subjects' grasp, they will learn to eliminate responses which they are told are wrong, almost to the same extent as they will learn to repeat responses which they are told are right.—M. D. Vernon (Cambridge).

1447. Davies, D. R. The effect of tuition upon the process of learning a complex motor skill. *J. educ. Psychol.*, 1945, 36, 352-365.—An archery class of 20 women students was given instruction in the skill and compared with a similar class which received no instruction. Records were kept during three months, for 18 practice periods. The learning curve for the tuition group was consistently superior to that for the non-tuition group, but instruction did not smooth out the irregularities in the curve. A significant correlation between mental-test scores and archery achievement was found in the tuition group but not in the control group. For the non-tuition group, achievement was found to correlate significantly with previous physical education experience and with height, whereas these factors were unimportant in the group which received instruction.—E. B. Mallory (Wellesley).

1448. Delay, J. Les amnésies expérimentales après électro-choc. (Experimental amnesias after electric shock.) *Rev. neurol.*, 1943, 75, 20-22.—Amnesias can best be studied in man when they are experimentally produced by electric shock. Two types of amnesias may be produced in this way: (1) retrograde amnesias, of which there are seen three varieties: (a) loss of a detail of the past such as a name, a date, an address, a telephone number, or an initial, (b) a whole gap or lacuna in the past, and (c) a forgetting of the delirious theme; and (2) anterograde amnesias, which have to do with the recitation of the present and involve not a faulty fixation of the images but a defect in mental synthesis. These amnesias cure in a few weeks.—F. C. Sumner (Howard).

1449. Eysenck, H. J., & Halstead, H. The memory function. I. A factorial study of fifteen clinical tests. *Amer. J. Psychiat.*, 1945, 102, 174-179.—The authors studied the memory function by analyzing the results of 15 tests of memory and 1 test of intelligence which were administered to 60 male

neurotic army hospital patients. The findings indicated that: (1) all the memory tests correlated positively with the test of intelligence, with correlations varying from $+0.63$ to $+0.96$; (2) one general factor accounted for all the correlations within the limits of the probable error, this general factor accounting for 74% of the variance; and (3) the general factor could be equated with general intelligence with no need of postulating a "memory" factor. From these findings the authors concluded that the ability involved in the clinical tests of memory included in this research was the same as that involved in the intelligence test; therefore, to accept scores on these tests as estimates of memory was grossly misleading. 41-item bibliography.—*R. D. Weitz* (Jersey City, N. J.).

1450. Kellogg, W. N., Pronko, N. H., & Deese, J. **Spinal conditioning in dogs.** *Science*, 1946, 103, 49-50.—Chronic spinal dogs were given 1,000 trials each in a conditioning experiment in which the conditioned stimulus was a shock to the left rear foot, the unconditioned stimulus a shock to the right rear foot, and the response to be conditioned the moving or flexion of the entire right hind limb. Muscle twitches of small amplitude and very short latency in response to the conditioned stimulus were obtained; it is assumed that this response is the same as the spinal conditioned response observed by Shurrager and Culler in the acute spinal preparation. However, the authors obtained not only the twitching or flexion response, but also an extension was frequently observed, this extension being of longer duration than the flexion twitch. With respect to the course of these two antagonistic responses, nothing like a typical learning curve was obtained, and no evidence of retention between experimental sessions was apparent. The authors conclude that they have not been able to establish spinal conditioning in chronic preparations; instead, the fluctuations of the response appear to be more adequately described as changes in reflex behavior.—*F. A. Mote* (Connecticut).

1451. Morgan, J. J. B. **Weight given to untenable factors in thinking.** *J. educ. Psychol.*, 1945, 36, 396-410.—Students were presented with problems involving a series of push buttons and were told that only one button would ring a bell. They were then given four ringing combinations in which only one button appeared every time. When asked to rate the buttons in order, from the one most likely to have rung the bell to the one least likely to have rung it, the whole group of 157 subjects obediently placed the buttons in rank order, ignoring the fact that only one logical choice was possible and all the others equally impossible. The order of "probability" reported usually followed some mechanical sequence, such as number of appearances, place, or alphabetical order. These results agreed with those of similar studies. The author concludes that when logically irrelevant factors appear in the setting of a problem, a person may be so influenced by aspects of these details that he ceases to be intelligently critical.—*E. B. Mallory* (Wellesley).

1452. Morris, A. **A descriptive study of maze learning.** *Proc. Okla. Acad. Sci.*, 1945, 25, 67-69.—Subjects reported their experiences while learning the stylus mazes. The study was part of the experimental program described by L. B. Hoisington (see 20: 1402). The following conclusions are drawn: (1) Learning is a process of developing proper determinations and adjustments to a situation. (2) Simple adjustments, observed at first, become more complex as learning ensues. (3) Nature of adjustment varies with the stage of learning. (4) Kines-thesis from eyes, throat, and arms particularly is utilized. (5) When the general adjustment for the whole maze is wrong, appropriate specific adjustments previously developed cannot arise. (6) Regardless of degree of mastery, sensory experience is still essential. (7) There is close co-operation between sensory experience and motor adjustments.—*M. O. Wilson* (Oklahoma).

1453. Nyman, A. **Begåvningsarna och samhället. Några synpunkter på våra andliga naturtillgångar och deras tillvaratagande.** (The intellect and society; some views on our intellectual natural resources and their utilization.) Lund: Gleerup, 1942. Pp. 128. 3 Kr.—[Abstracted review; original not seen.] This is a discussion of the social necessity of utilizing intellectual resources in a rational manner, especially through the devices of psychotechnics. Most of the volume rests on an analysis of German and American experience with methods of dealing with the talented. The author argues that the proper care of the gifted includes much more than the problem of selection, for the phenomenon of "under-pressure" in school life is a real one. He is critical of IQ worship and argues that this index is more reliable with inferior mentalities than with higher, delicate, and more differentiated intellects where special talents show a number of tops and where characterological factors in the emotional and volitional life are often decisive.—*G. W. Hartmann* (Teachers College, Columbia).

1454. Reynolds, B. **A repetition of the Blodgett experiment on 'latent learning.'** *J. exp. Psychol.*, 1945, 35, 504-516.—"1. The Blodgett latent learning study [see 4: 1027] was repeated with two groups of animals. 2. One group of animals contained maze-wise albino rats. Twenty-one animals were fed from the beginning of training and 21 from the seventh trial. 3. The other group contained only naive animals. Fourteen albino males were fed from the first trial; 20 albino males were fed from the seventh trial; and 19 albino males and 13 hooded females were fed from the third trial. 4. It was observed that the seven-day animals learned during the non-reward period. Both seven-day and three-day groups showed a decrease in depth of penetration of blinds before the introduction of food. 5. No instance of latent learning was observed in any of the delayed reward animals in either main group. 6. The data on decrease of penetration of blinds were held to offer explanation of such latent learning as has been observed in studies of the Blodgett type."—*D. W. Taylor* (Stanford).

1455. Thorpe, W. H. Animal learning and evolution. *Nature, Lond.*, 1945, 156, 46.—The author is concerned with the theory that local differences of habit may be the starting point for the evolution of new species. A general consideration of the effects of learning in groups of animals restricted to some particular locality leads him to suggest that "the learned or conditioned response of the animal to the environmental education will, besides tending to reinforce and make effective slight topographical and geographical barriers, give momentum to, and set the direction for, the selective processes tending to bring about genotypic isolation. The selective processes will thus bring about the reinforcement and perhaps the eventual replacement of non-heritable modifications by genetic modifications, and will thus closely simulate a Lamarckian effect."—A. C. Hoffman (Tufts).

1456. Watts, J. W., & Freeman, W. Intelligence following prefrontal lobotomy in obsessive tension states. *Arch. Neurol. Psychiat., Chicago*, 1945, 53, 244-245.—Abstract.

1457. Welch, L., Diethelm, O., & Long, L. Measurement of hyper-associative activity during elation. *J. Psychol.*, 1946, 21, 113-126.—An association test of 15 nonsense syllables of low association value was administered to several groups. Seventy-nine normal children and 179 college students averaged 3.13 responses, while 47 psychiatric patients rated as being elated averaged 7.89, significantly higher. Seventy-two percent of the patients in an elated state made 7 or more responses, while 87% of the patients not in an elated state made scores of less than 7. The factor of distractibility was ruled out by use of a test of concentration. Flight of ideas was observed with association scores of 10 and above. "The findings indicate that under the influence of elation the associative activity is facilitated."—R. B. Ammons (Syracuse).

1458. Wilson, M. O. Ideation of familiar and unfamiliar activities. *Proc. Okla. Acad. Sci.*, 1945, 25, 70-73.—Data were obtained from direct observations of observers, according to a method described by L. B. Hoisington (see 20: 1402). Two sample reports are quoted. Data obtained support the following assumptions: (1) *Ideation* is a sequence of kinesthetic experiences resulting from a series of muscular adjustments held in relationship by a broader determination. (2) An *idea* is a single kinesthetic pattern in this series which becomes stabilized for an instant and stands for some object, situation, or other sensory experiences, or a relationship between these experiences. (3) An idea must relate to some perceptual process which preceded it. The method described seems feasible for the study of various ideational processes: learning, memory, reasoning.—M. O. Wilson (Oklahoma).

1459. Wolters, A. W. The concept of mental maturity. *Nature, Lond.*, 1945, 156, 494-496.—The author believes that "we cannot arrive at a completely adequate definition of maturity until we have analyzed out all the functions considered important

and decided what is the criterion of maturity of each. The more complex the pattern of the creature's life, the more difficult it is to disentangle the essential threads." In the absence of complete disentanglement, the author suggests in the case of mental maturity "that an individual is mature if and when he successfully meets the problems set to him by the society in which he lives (if we could agree as to what constitutes success)." The concept of mental maturity may also emphasize emotional and intellectual integration and allow for the capacity for growth and variation. Having the concepts of development of specific traits, of integration, and of variation of response, however, we may no longer need the term maturity, particularly since the application of the term is apt to overlook the temporal aspects of mental life.—A. C. Hoffman (Tufts).

[See also abstracts 1331, 1404, 1477, 1526, 1541, 1594, 1670, 1717, 1722.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

1460. Aronson, L. R., & Noble, G. K. The sexual behavior of Anura. 2. Neural mechanisms controlling mating in the male leopard frog, *Rana pipiens*. *Bull. Amer. Mus. nat. Hist.*, 1945, 86, 89-139.—Mating in male *Rana pipiens* was observed following various types of brain lesions, ablations, and transections. The following phases of mating were studied by means of quantitative observations: (1) the warning croak; (2) the swimming reaction of the male towards the estrous female; (3) spawning movements of the male which follow the oviposition movements of the female; and (4) release of the female by the male at the termination of the oviposition. Qualitative observations were also made on the effects of brain injuries upon the sex call and clasp reflex. Ablation of all of the forebrain excepting the preoptic area caused no changes in the behavior studied. Following removal of the entire forebrain, the tendency of males to pursue and attempt to clasp estrous females was markedly reduced. When forebrainless males were placed upon ovulated females, normal amplexus and oviposition followed. Males with this type of lesion usually failed to release the female at the end of the oviposition. Lesions in the preoptic area abolished the release behavior but not the male's swimming response towards the female. Complete ablation of the forebrain, diencephalon, tectum, cerebellum, and anterior tegmentum did not interfere with the spawning movements as evidenced by the recovery of fertilized eggs. Lesions in the tegmentum at the level of the trochlear nucleus abolished the spawning responses. The warning croak was lost following extensive invasion of the inferior colliculi.—L. R. Aronson (Amer. Mus. Nat. Hist.).

1461. Beers, C. V., & Cheever, E. A. Hereditary ataxia. *J. Hered.*, 1945, 36, 335-344.—In 6 generations of a kinship including 162 individuals, 18 males

and 2 females manifested an ataxic gait. This appears in 3 branches of the kinship and traces back to an ancestor prior to the first generation recorded in the genealogy. An autosomal dominant gene appears to account for the susceptibility, for 15 out of 16 affected individuals had an affected parent. One unaffected female transmitted the gene to her son. Syphilis is excluded.—G. C. Schwesinger (War Relocation Authority).

1462. Bratbak, J. Øyebevegelsene ved lesning. (Movements of the eyes in reading.) *Norsk ped. Tidskr.*, 1943, 27, 59-163.

1463. Clausen, J. Følelsene og kroppen. (Feelings and the body.) *Norsk ped. Tidskr.*, 1942, 26, 225-236.

1464. Cott, H. B. The edibility of birds. *Nature, Lond.*, 1945, 156, 736-737.—Preliminary evidence indicates that the preference of men, cats, and hornets for birds as food varies inversely with the visibility of the bird's plumage. Thus the most preferred birds seem to be the least conspicuous.—A. C. Hoffman (Tufts).

1465. Despert, J. L. Incidence of infections of the upper respiratory tract in relation to emotional reactions and adjustment. *Arch. Neurol. Psychiat.*, Chicago, 1946, 55, 73-74.—Abstract and discussion.

1466. Ewer, D. W. Acoustic control in the flight of bats. *Nature, Lond.*, 1945, 156, 692.—Ewer elaborates briefly on Hartridge's comparison of the bat's localizing technique to radar (see 20: 1471). He suggests that one function of the complex intra-aural muscle reflex in the bat may be to make use of the trailing edge of the echo in such a way that the reflected note does not seem to be continuous with the emitted one. He also suggests that the great development of the pinnae of the bat's ears may enable the bat to eliminate signals reflected from the ground and so increase the maximum range at which objects may be detected.—A. C. Hoffman (Tufts).

1467. Falconer, D. S. On the behavior of wireworms of the genus *Agriotes* Esch. (Coleoptera, Elateridae) in relation to temperature. *J. exp. Biol.*, 1945, 21, 17-32.—The behavior of wireworms was observed in an experimental situation under different temperatures, with attention to their activity and choice of habitat. It was found that resistance to high temperature was not influenced by previous temperature. Resistance to low temperature was greatly influenced by the rate at which the temperature was reduced. Temperature influenced the speed but not the continuity of activity. Little feeding took place at extremely high or low temperatures. No vertical movements in response to gravity were exhibited by the wireworms at any temperature. The mechanism by which the wireworms reacted at a temperature boundary was of the nature of a shock reaction and was a reversal of their direction of movement.—M. M. Simpson (Wisconsin).

1468. Falconer, D. S. On the movement of wireworms of the genus *Agriotes* Esch. (Coleoptera,

Elateridae) on the surface of the soil and their sensitivity to light. *J. exp. Biol.*, 1945, 21, 33-38.—In a laboratory situation, wireworms were found to come to the surface of sand and migrate a distance of several meters during one emergence. They reacted to directional light, were extremely sensitive to light of all wave lengths, and migrated on the surface only when the humidity of the air was very high. Surface migration was also conditional upon lack of food but not regarded as 'food-seeking' in nature. It is probable that wireworms migrate out of a region of food shortage mostly at night and keep to a more or less straight path by the light of the moon.—M. M. Simpson (Wisconsin).

1469. Gassovsky, L. N., & Nikolskaya, N. A. Podvizhnost' glaza v protsesse fiksatsii tochki. (The mobility of the fixating eye.) *Probl. physiol. Opt., Acad. Sci. U. S. S. R.*, 1941, 1, 173-180.—A study is reported of the frequency, magnitude, and direction of involuntary movements of the eye during fixation of a point in space. Both monocular and binocular fixation were studied.—L. A. Riggs (Brown).

1470. Graham-Bryce, I., Bullen, A. K., & Forbes, W. H. Effect of pregnenolone on the ability to perform prolonged psychomotor tests. *Psychosom. Med.*, 1945, 7, 353-358.—Pregnenolone administered to 2 male and 4 female civilians did not produce beneficial results on prolonged psychomotor tests with a targetmeter. An analysis of the results suggested that positive effects are obtained only when subjects are under stress.—P. S. de Q. Cabot (United Drug, Inc.).

1471. Hartridge, H. Acoustic control in the flight of bats. *Nature, Lond.*, 1945, 156, 490-494.—The author discusses the details of the localizing mechanism used by bats in flight. Bats produce four different sounds: supersonic tones accompanied by a buzz and a click, and a signalling or communicating tone of about 7,000 cycles per second. The supersonic tones usually lie between 40,000 and 55,000 cycles, a frequency range regarded as optimal for localization considering the vocal apparatus required, the attenuation of sound during transmission, and the aural resolving power required. The tone may be interrupted (probably intentionally) and the rate of these interruptions may vary. The larynx of the bat contains at least two (one for the buzz, the other for the supersonic and signalling tones) and possibly three vibrating structures (one for each of the three sounds). The possible structure of each larynx and of the mechanism producing the click is discussed. It is the conclusion of the author that the bat breathes and phonates (during both inspiration and expiration) via the nose rather than the mouth. It is suggested that during the time the supersonic tone is being produced, the ear is rendered quiescent by "the intra-aural muscle reflex" (possibly by synchronization of the muscle systems involved). How the reflected sounds are used to localize is not known at present. Comments on this article appear on pages 692-693 of the same journal (see 20: 1466).—A. C. Hoffman (Tufts).

1472. Hartridge, H. The anti-chromatic reflex. *Nature, Lond.*, 1945, 156, 666.—This note announces the discovery of a nervous reflex which has the effect of eliminating from the retinal image the colored fringes produced by the chromatic aberration of the lens system. Details are to be published later.—A. C. Hoffman (Tufts).
1473. Holmes, T. H., Goodell, H., & Wolff, H. G. Relation of life situations, emotions and nasal function. *Arch. Neurol. Psychiat., Chicago*, 1946, 55, 71-73.—Abstract and discussion.
1474. Kempf, E. J. Ontogeny of bisexual differentiation in man. *J. clin. Psychopath. Psychother.*, 1945, 7, 213-252.—The study of the phylogeny, ontogeny, homology, analogy, and differentiation of human bisexual development is of the greatest importance, for these factors are critical in the development and formation both of the individual personality and the social structure in which it lives. This paper reviews in some detail the homologous ontological development of primary and secondary sex characteristics, and the subsequent bisexual differentiation of the same structures. In a similar fashion the bisexual differentiation of the personality and the ego-attitude are elaborated. Freud's concept of the libido has been responsible for much confusion and is generally inadequate to account for the facts, while the author's concept of bisexual differentiation is more successful, since it is based on the modern data of biochemistry, neurophysiology, and anatomy and has been derived independently for the most part. Recent experimental and clinical studies on neuroses in men and animals also support the author's ideas on bisexual differentiation.—C. E. Henry (U. S. Naval Reserve).
1475. Krumbiegel, S. Die Persistenz physiologischer Eigenschaften in der Stammesgeschichte. (The persistence of physiological properties in the history of the species.) *Z. Tierpsychol.*, 1940-1941, 4, 249-258.—Reflexes may persist as vestiges of functions of organs that have degenerated in the course of evolution. Several examples are cited: reflex movements of the tail, the function of which is to change the elevation during birds' flight, persist in the flightless ostrich; tail movements, originally necessary for the maintenance of equilibrium in the monkey, can be detected in species with almost completely atrophied tails; horned animals charge at each other with head lowered even though the horns have degenerated (phylogenetically) to the point where they offer no protection. Certain of these reflexes may be maladaptive and may be one cause of the extinction of the species.—(Courtesy *Année psychol.*).
1476. Lindsay, J. R., Oppenheimer, M. J., Wycis, H. T., & Spiegel, E. A. Receptor apparatus of the vestibulovestibular reaction. *Arch. Otolaryng., Chicago*, 1945, 42, 257-266.—"An important component of the motion sickness syndrome, the vasodepressor reaction to labyrinthine stimulation, could be produced in guinea pigs after the otolithic membranes had been thrown off the maculas, at a stage when the positional reflexes could not be elicited. . . . Complete paralysis of the labyrinth seems necessary in order to abolish the vestibulovestibular reaction, so that a strict localization of this reaction in a certain part of the labyrinthine receptors does not seem warranted."—A. C. Hoffman (Tufts).
1477. Lorenz, K. Die angeborenen Formen möglicher Erfahrung. (The innate conditions of the possibility of experience.) *Z. Tierpsychol.*, 1942-1943, 5, 235-409.—The writer first discusses the innate and endogenous factors in instinctive responses of animals, pointing out that the various external signals which release the responses summate in their effect in a non-Gestalt manner. In both domesticated animals and civilized man, the complex of stimuli capable of releasing instinctive behavior expands, decreasing the precision of the instinct and diminishing the ability to survive in the natural environment. And so the development of reason (contrasted with instinct) is both an advance and a decadence, an advantage and a danger. Only by purposeful exercise of this reason itself, and by voluntarily limiting his liberty, can man make up for his loss of guiding instincts and become master of his destiny.—(Courtesy *Année psychol.*).
1478. Meyer, A., Bollmeier, L. N., & Alexander, F. Correlation between emotions and carbohydrate metabolism in two cases of diabetes mellitus. *Psychosom. Med.*, 1945, 7, 335-341.—Two cases are reported, one a 29-year-old male and the other a 26-year-old female, who developed diabetes mellitus under the strain of similar emotional conflicts. "Both patients retained an infantile dependent and demanding attitude, and felt frustrated because their demands for attention and love were out of proportion to the reality situation of an adult and consequently were never adequately satisfied." Frustration resulted in hostility, and diabetes developed when infantile wishes conflicted with the frustrated demands. Sugar output increased under the strain of this conflict and decreased at times of self-pity and passivity. In certain cases the raised sugar level depends on the mobilization of sugar and not on the failure of its utilization.—P. S. de Q. Cabot (United Drug, Inc.).
1479. Nissen, H. W. "Freezing" behavior in rats. *Science*, 1946, 103, 27.—Attention is called to the fact that in his recent article entitled "A Possible Explanation of 'Freezing' Behavior in Rats" (see 20: 1482), Riess fails to report the number of animals in one of his experimental groups.—F. A. Mote (Connecticut).
1480. Pincus, G., & Hoagland, H. Effects on industrial production of the administration of $\Delta 5$ pregnenolone to factory workers. I. *Psychosom. Med.*, 1945, 7, 342-346.—On the basis of experiments with a group of 8 skilled leather workers over an 8-week period and another group of 12 turret lathe operators producing bayonets on a piecework incentive basis, pregnenolone was found to increase the efficiency of the workers more effectively than

placebos when incentives and a competitive spirit were present.—*P. S. de Q. Cabot* (United Drug, Inc.).

1481. Pincus, G., Hoagland, H., Wilson, C. H., & Fay, N. J. Effects on industrial production of the administration of $\Delta 5$ pregnenolone to factory workers. II. *Psychosom. Med.*, 1945, 7, 347-352.—The piecework production of 173 male and female workers making optical goods was studied while the subjects took placebos and pregnenolone. In general, pregnenolone facilitated production output which was higher than that obtained with placebos. Differences in dosage on improvement of production resulted from the ingestion of pregnenolone with some improvement retained after medication had terminated.—*P. S. de Q. Cabot* (United Drug, Inc.).

1482. Riess, B. F. A possible explanation of "freezing" behavior in rats. *Science*, 1945, 102, 570.—"Freezing" in experimental animals, e.g., rats and guinea pigs, consists in a state of immobility the animals adopt when placed in the experimental apparatus. In the course of experiments wherein two groups of rats were used, one group ($N = 124$) housed in groups of 6, the other group (N not given) all housed in isolation, a difference in freezing behavior was observed. The group-housed animals showed greater incidence of freezing. Reference to fighting among group-housed rats and observations of submissiveness and dominance in such situations are referred to. "It would seem then that the phenomenon in question is the result of the hitherto uncontrolled factor of social interaction in the living quarters of the experimental animals."—*F. A. Mote* (Connecticut).

1483. Riess, B. F. A correction. *Science*, 1946, 103, 27.—In a recently published article dealing with the problem of "freezing" behavior in rats (see 20: 1482), the author failed to give the number of cases in one of the groups experimented upon; this group was the one housed in isolation. The number of cases was 84.—*F. A. Mote* (Connecticut).

1484. Spiegel, E. A., Henny, G. C., & Wycis, H. T. The vasomotor component of labyrinthine vertigo. *Arch. Neurol. Psychiat.*, Chicago, 1946, 55, 75-76.—Abstract and discussion.

1485. Weiner, J. S., & Hutchinson, J. C. D. Hot humid environment: its effect on the performance of motor coordination tests. *Brit. J. industr. Med.*, 1945, 2, 154-157.—Resting nude subjects given a short exposure in a still, saturated atmosphere at 91°, clothed subjects in a temperature of 88°, and a nude subject during long exposure at 82°, both resting and after work, all showed deterioration in performance of a psychomotor co-ordination test as compared with results at ordinary room temperature. The test consisted essentially in picking small balls off a rotating disc with forceps. The decline was due to slowness of movement (about 8% increase in time) and inaccuracy in handling the balls. The experiments suggest that acclimatization of motor co-ordination to a hot, humid environment, analogous to acclimatization to work, occurs. However, the two must be distinct because subjects previously

acclimatized to work in the hot room nevertheless showed impaired co-ordination there.—*M. E. Morse* (Baltimore, Md.).

1486. Wohlmann, H. Über den Einfluss calorischer Labyrinthreizungen auf den arteriellen Blutdruck des Menschen. (On the influence of caloric stimulation of the labyrinth upon the arterial blood pressure of man.) *Z. Hals-Nas.- u. Ohrenheilk.*, 1944, 49, 417-424.—While agreement exists that cold stimulation of the labyrinth of animals lowers arterial blood pressure, findings for human beings have been ambiguous. The present experiment was undertaken on 4 healthy human males ranging in age from 24 to 32. Stimulation of the labyrinth (always unilateral) consisted in squirting into the external ear passage 100 ccm. of water of a temperature from 13° to 15° C. Blood pressure was continuously recorded for the right art. radicalis. Subjects sat upright with head slightly tilted backwards. With application of cold stimulus to the ear passage, blood pressure was immediately stepped up. With cessation of spraying, a perceptible lowering of blood pressure immediately occurred, followed by a gradual rise which attained its peak towards the end of the nystagmus. Also a distinct alteration of respiration occurred during the spraying and consisted in an inhibition followed by a slowing and deepening.—*F. C. Sumner* (Howard).

[See also abstracts 1375, 1403, 1406, 1430, 1432, 1434, 1455, 1496, 1506, 1515, 1526, 1534, 1544, 1549, 1577, 1597.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

1487. Berliner, B. Short psychoanalytic psychotherapy. *Bull. Menninger Clin.*, 1945, 9, 155-161.—To his previous statement (see 16: 1907) that short psychoanalytic psychotherapy is basically that of ego-analysis including the ego-near parts of the superego, the author adds that "it is mainly character analysis and the analysis of inter-personal relations." It differs only quantitatively from the classical analysis. "Cases suitable for short psychoanalytic psychotherapy are those in which the patient can be helped to see and to discuss his central conflict in its own right and in terms of its realities without extensively reliving it or acting it out in relation to the therapist." If resistance arises from a negative transference, then the transference itself must be analyzed. In short psychotherapy the defense mechanism of isolation is of particular importance. Encouraging results have been obtained with cases of climacteric depression.—*W. A. Varvel* (Texas A. & M. College).

1488. Dunlap, K. Psychoanalysis and the unconscious. *Amer. J. Psychiat.*, 1945, 102, 330-336.—The author presents a critical analysis of psychoanalysis and discusses the postulates of the unconscious, repressed desires, libido, and dream contents. He compares psychoanalysis with religious cults and concludes that it is essentially a form of mysticism

which varies little from earlier cults.—*R. D. Weitz* (Jersey City, N. J.).

1489. Eysenck, H. J., & Furneaux, W. D. **Primary and secondary suggestibility: an experimental and statistical study.** *J. exp. Psychol.*, 1945, 35, 485-503.—Sixty neurotic male army patients of average intelligence were given 12 tests of suggestibility. A factorial analysis of the tetrachoric inter-correlations indicated that there are two types of suggestibility: primary suggestibility, the ideomotor kind which correlates highly with hypnotizability; and secondary suggestibility, the indirection kind which does not correlate with hypnotizability. The trait of hypnotizability was found to be distributed continuously. Although the distributions of the raw scores on the tests of primary suggestibility were of the usual U-shaped type, it was shown that by the application of two psychophysical laws it is possible to convert these distributions into more nearly normal ones. Certain of the results suggested that primary suggestibility should be subdivided into active and passive suggestibility. 29-item bibliography.—*D. W. Taylor* (Stanford).

1490. Fodor, N. **Lycanthropy as a psychic mechanism.** *Amer. J. Folklore*, 1945, 58, 310-316.—Dreams from two cases undergoing psychoanalytic treatment revealed unconscious identification with wolves. This is regarded as an escape mechanism from feelings of guilt by regression to a level where guilt is inoperative.—*L. M. Hanks, Jr.* (Bennington).

1491. Fodor, N. **The negative in dreams.** *Psychoanal. Quart.*, 1945, 14, 516-527.—The author cites and discusses a variety of dreams to illustrate that, while there is no negative in dreams inasmuch as the negative serves to direct attention away from something that does exist, there can be a valid negative achieved by a positive which serves to disclose a negative significance.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

1492. Kahn, S. **Suggestion.** *Med. Rec., N. Y.*, 1945, 158, 608-610; 729-732.—A general discussion is given of the conscious, the unconscious, the importance and frequency of suggestion in everyday life, the significance of the unconscious past and of the current emotional attitudes, and the varieties and forms of suggestion employed for religious, political, and especially medical purposes.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

1493. Knight, R. P. **The use of psychoanalytic principles in the therapeutic management of an acute psychosis.** *Bull. Menninger Clin.*, 1945, 9, 145-154.—"An acute reactive psychotic episode is described and interpreted from a psychoanalytic viewpoint in an attempt to show that the decompensation was not due to the 'overwork' but was entirely meaningful in terms of the unconscious conflict aroused by the precipitating event. Instead of being a precipitating cause of the illness the overwork represented a desperate attempt . . . to continue functioning in spite of intense emotional conflict. The further point is made that application of psychoanalytic

principles led both to the understanding of the manifestation of the illness and to an effective treatment rationale based on this understanding."—*W. A. Varvel* (Texas A. & M. College).

1494. Lhermitte, J., & Parcheminey, —. **Sur une complication exceptionnelle de l'électro-choc: l'hallucinosse musicale.** (On an exceptional complication resulting from electric shock: musical hallucinosis.) *Rev. neurol.*, 1943, 75, 37-38.—A case is reported of a 40-year-old woman, ardently musical, who has been suffering for 10 years from otosclerosis involving deafness. In the course of electric shock treatment (fifth shock), musical auditory hallucinations supervened which she believes she actually heard.—*F. C. Sumner* (Howard).

1495. McMahan, E. **PK experiments with two-sided objects.** *J. Parapsychol.*, 1945, 9, 249-263.—Cardboard squares or plastic discs were allowed to fall through a system of baffles to the table, while the subject "made a mental effort" to cause the object to come to rest with a designated side up. In the first experiment, with college students as subjects, the results were not significantly different from chance. In the second experiment, children were tested in a play social situation in which each subject was given 2 turns of playing. Total results showed a number of successes not significantly above chance. However, while the scores of the children on their first turn tended to be positive, the scores on their second turn tended to be negative; this difference (statistically significant) is interpreted as evidence of the "causal influence of the mind upon the falling discs."—*F. W. Finger* (Virginia).

1496. Mittelman, B. **Psychoanalytic observations on dreams and psychosomatic reactions in response to hypnotics and anaesthetics.** *Psychoanal. Quart.*, 1945, 14, 498-510.—The author reports his observations upon the psychological effects of pharmacodynamic agents, sodium amytal in one instance and nitrous oxide anaesthesia in the other, upon the dreams and psychosomatic reactions of two patients undergoing psychoanalytical therapy. He notes that the patients' reactions to those chemical agents (which were not a part of their therapy), their dreams during the resultant sleep, and the psychosomatic reactions upon awakening presented some consistent features but also other elements which varied with the patients' current emotional constellations. Thus sodium amytal could serve both as a sedative and as an excitant. In the nitrous oxide anaesthesia, the dream content, emotions, and psychosomatic phenomena such as laughter, weeping, and vomiting varied in accord with the conscious problems with which the patient was struggling.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirm.).

1497. Rhine, J. B. **Precognition reconsidered.** *J. Parapsychol.*, 1945, 9, 264-277.—An evaluation of the experiments on precognition leads the writer to the conviction that this capacity does exist—that future events (such as the later order of a card deck not yet shuffled) can be predicted with better than

chance success. He discusses the experimental conditions required to distinguish among precognitive telepathy, precognitive clairvoyance, and precognitive sensory perception, venturing the guess that the latter probably does not exist. It will be difficult to establish the reality of precognitive telepathy (the existence of any true telepathy is still in doubt), but it does appear that precognitive clairvoyance has already been established as a reality. Some of the far-reaching implications of the demonstration of precognition are suggested.—*F. W. Finger* (Virginia).

1498. Rhine, J. B., & Humphrey, B. M. Position effects in the six-by-six series of PK tests. *J. Parapsychol.*, 1945, 9, 296-302.—This report summarizes a series of 186,624 die throws, the object of which was to induce the 6-face to come up by mental influence. Inasmuch as there was no control to rule out the possibility of biased dice, the high scores cannot be accepted as direct evidence of the PK effect. However, analysis of the record sheets showed a significant decline in success from the upper left quarter to the lower right quarter, which is typical of other PK reports.—*F. W. Finger* (Virginia).

1499. Stuart, C. E. An ESP experiment with enclosed drawings. *J. Parapsychol.*, 1945, 9, 278-295.—Each of 96 subjects was given 4 opaque envelopes containing simple drawings and asked to attempt a reproduction of each invisible drawing. The responses were then ranked preferentially by independent judges as to their correspondence to the stimulus drawings. There was no significant relation between the response drawings and the stimulus drawings they were supposed to match. It was found, however, that there was a statistically reliable tendency for the response to match the just preceding stimulus.—*F. W. Finger* (Virginia).

1500. Verrienti, G. Rilievi psicopatologici in tema di allucinazione. Il fenomeno allucinazione analizzato da Dostojewski ((I Fratelli Karamazoff)). (Notes on hallucination: the hallucinatory experience as it is analyzed by Dostoevski in *The Brothers Karamazov*.) *Arch. Psicol. Neurol. Psichiat.*, 1945, 6, 226-236.—Ivan Feodorovich's hallucinatory experience as it is described in Dostoevski's novel is analyzed. Contributing factors to the hallucination are disorganization of mental activity, predominance of the unconscious and instinctual drives, and productivity of newly created mental content having spatial and aesthetic value.—*R. Calabresi* (Hunter).

1501. West, D. J. Experimental parapsychology in wartime Britain: a review. *J. Parapsychol.*, 1945, 9, 230-248.—In spite of the difficulty of continuing research under wartime conditions, several experiments in the field of extrasensory perception have been reported by British investigators. The reviewer attaches particular significance to the publications of Carington (on paranormal cognition of drawings) and of Soal and Goldney (on precognitive telepathy). The few experiments in which mental effort was

made to control the fall of dice showed no extra-chance results.—*F. W. Finger* (Virginia).

[See also abstracts 1514, 1518, 1552, 1554, 1562, 1574, 1633.]

FUNCTIONAL DISORDERS

1502. Adler, A. Mental symptoms following head injury; a statistical analysis of two hundred cases. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 34-43.—A study of 200 patients with head injuries indicated that 31.5% developed post-traumatic mental symptoms. "Pretraumatic factors having a high incidence of post-traumatic mental symptoms were advancing age, the married status in men, certain national stocks, certain occupations, the type of injury and, among the psychiatric disturbances, pretraumatic symptoms based on anxiety. Post-traumatic factors having a high incidence of post-traumatic mental symptoms were the initial occurrence of coma and post-traumatic amnesia, certain accompanying injuries, a prolonged stay in the hospital and the presence of headaches and dizziness." Further analysis reveals some of the causal factors involved in the nature and complications of the mental symptoms.—*K. S. Wagoner* (DePauw).

1503. Aldrich, C. A. The relation of pediatric preventive medicine to mental hygiene. *Psychosom. Med.*, 1945, 7, 368-371.—The principles are presented which are involved in a program of studying the relationship between the emotional stability and physical development of children in the Rochester (Minnesota) Child Health Project.—*P. S. de Q. Cabot* (United Drug, Inc.).

1504. [Anon.] Current trends in military neuropsychiatry. *Bull. U. S. Army med. Dep.*, 1944, No. 78, 44-50.—The incidence of neuropsychiatric casualties varies with a number of environmental factors, such as the location of troops, length of time in combat, and the arduousness of combat (the rate of battle injuries coincides almost exactly with rate of neuropsychiatric casualties). This means, not that screening is useless, since many individuals cannot be used by the army, but that every man has his breaking point. Preventive measures along educational, motivational, and environmental lines are described. Treatment policies are as follows: every case is regarded as salvageable; every case is a medical emergency and therapy should begin immediately; psychoneurotics are treated in clinics, not in hospitals where their illnesses might become exaggerated; and many psychiatric cases are situational reactions which will improve on reassignment.—*R. O. Rouse* (U. S. Army Air Forces).

1505. [Anon.] Biochemical aspects of mental disorder. *Nature, Lond.*, 1945, 156, 101-103.—*A. C. Hoffman* (Tufts).

1506. Arieti, S. Primitive habits and perceptual alterations in the terminal stage of schizophrenia. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 378-384. A study was made of the significance of peculiar

habits and quasi-neurologic phenomena noted in the terminal stages of dementia praecox. Observations of characteristic reactions regarding eating behavior and sensory disturbances suggest that "the schizophrenic process either is organic in nature or at a certain stage is associated with organic changes."—*K. S. Wagoner (DePauw)*.

1507. Bales, R. F. Social therapy for a social disorder—compulsive drinking. *J. soc. Issues*, 1945, 1, No. 3, 14-22.—Alcoholism is regarded as an atypical means of satisfying the needs for social recognition and approval. Because of the negative value of the compulsion, the afflicted becomes a social isolate and is inaccessible to the influence of relatives and friends. On this account the group therapy offered by Alcoholics Anonymous can cure alcoholism through reintegration in a group where his disabilities are the necessary qualifications for entrance.—*L. M. Hanks, Jr. (Bennington)*.

1508. Bennett, E. A comparative study of annoyances. *Brit. J. Psychol.*, 1946, 36, 74-82.—A battery of 5 tests was administered to 250 hospital service patients, half of whom were neurotic and half had no record of neurotic disorder. Each test consisted of 12 descriptions of possibly annoying situations, and the patient was asked to record which of these actually annoyed him. Some of the situations related to threats to personal interests or to self-esteem, with annoyance directed towards the self or against others. Other situations related to impersonal annoyances such as offensive sights and sounds. The neurotics showed a significantly greater sensitivity than the normals to stimuli reminding them of their personal inadequacy; they had a relatively greater interest in maintaining their idea of themselves than of adapting to objective situations. They were relatively more prone to direct their annoyance against themselves rather than against others. They also showed a specific sensitivity to noise, probably as a result of inability to concentrate in face of distraction.—*M. D. Vernon (Cambridge)*.

1509. Berger, I. A. [Ed.] *Voprosi sotsialnoi i klinicheskoj psikhonevrologii*. (The questions of social and clinical psychoneurology.) Vol. VI. Moscow: 1941. Pp. 796.—This volume of the transactions of the neuropsychiatric clinics of the Moscow District, Department of Health, contains data on the organization of neuropsychiatric aid and on clinical, diagnostic, and therapeutic treatment of certain forms of mental and nervous disease. The questions of trauma, neuro-infection, and epilepsy are discussed. (See 20: 1528, 1534.)—*A. Yarmolenko (Leningrad)*.

1510. Bleckwenn, W. J. Neuroses in the combat zone. *Ann. intern. Med.*, 1945, 23, 177-183.—This is a general review of the subject.—*M. E. Morse (Baltimore, Md.)*.

1511. Born, W. The art of the insane. *Ciba Symposia*, 1946, 7, 202-236.—The author presents a series of general articles dealing with (1) art and mental disease, (2) the artistic behavior of the

mentally deranged, (3) the art of schizophrenics, and (4) great artists who suffered from mental disorders. 82-item bibliography.—*M. H. Erickson (Wayne County Gen. Hosp. & Infirm.)*.

1512. Brill, N. Q., & Walker, E. F. Psychoses in the army; follow-up study. *Bull. U. S. Army med. Dep.*, 1944, No. 79, 108-115.—"In a follow-up study on 183 soldiers discharged from the military service because of psychoses, 62 were reported by their families as having completely recovered. 77 were working full time and 29 part time. Only 34 still required hospital care and 15 others were under the care of private physicians. The data on this group indicate that psychoses in the army do not carry as grave a prognosis as the similar types developed in civilian life." Several other follow-up studies are summarized.—*R. O. Rouse (U. S. Army Air Forces)*.

1513. Bryson, E. The psychosomatic approach in gynaecological practice. *Practitioner*, 1945, 155, 378-384.—*M. E. Morse (Baltimore, Md.)*.

1514. Bunker, H. A. 'Repression' in prefreudian American psychiatry. *Psychoanal. Quart.*, 1945, 14, 469-477.—The author reviews a paper, published in 1892 by Charles W. Page, Superintendent of the Danvers Lunatic Hospital in Massachusetts, entitled "The Adverse Consequences of Repression." This paper constitutes the first contribution to American psychiatric literature which took cognizance of what its author termed repressed emotional sentiments, and it is actually the forerunner of Freud's recognition of repression as a psychological mechanism.—*M. H. Erickson (Wayne County Gen. Hosp. & Infirm.)*.

1515. Davison, C. Psychological and psychodynamic aspects of disturbances in the sleep mechanism. *Psychoanal. Quart.*, 1945, 14, 478-497.—Disturbances in sleep, either insomnia or hypersomnia, may be divided into two main categories, those associated with central nervous system lesions and those of psychogenic origin. Six clinical cases are given. Discussion is offered of the psychogenic factors involved, and emphasis is placed upon the need of recognizing the influence of emotions upon bodily functions and the possibility of repeated emotional disturbances effecting chronic bodily changes which may become irreversible.—*M. H. Erickson (Wayne County Gen. Hosp. & Infirm.)*.

1516. Erickson, T. C. Erotomania (nymphomania) as an expression of cortical epileptiform discharge. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 226-231.—A case of erotomania as the initial manifestation of a cortical epileptiform discharge is described. "Examination revealed the presence of a neoplasm, causing excitation of the topical projection of the genital structures in the right paracentral lobule. A year after operative removal of the neoplasm the patient no longer exhibited nymphomania."—*K. S. Wagoner (DePauw)*.

1517. Fisher, C. Amnesic states in war neuroses: the psychogenesis of fugues. *Psychoanal. Quart.*, 1945, 14, 437-468.—Although fugue states are

common in both military and civilian life, few detailed studies are recorded in the literature. The author presents 6 clinical cases illustrating 3 types of fugue, namely, fugue with awareness of loss of personal identity, fugue with change of personal identity, and fugue with retrograde amnesia. Treatment was accomplished by narcosynthesis in one case and by hypnosis in 5 cases. Discussion is offered of the various psychological patterns manifested in the fugues, and emphasis is placed upon the need for further investigations.—*M. H. Erickson* (Wayne County Gen. Hosp. & Infirmary).

1518. Fodor, N. Motives of insomnia. *J. clin. Psychopath. Psychother.*, 1945, 7, 395-406.—The case history of a man suffering from severe insomnia is presented with a psychoanalytic interpretation of the complex psychological structure of the disorder. The insomnia was apparently a fear of death and was accompanied by claustrophobia and many anxiety reactions. The analysis was broken off by the patient when only partially cured, and there followed a severe relapse that was again only partially treated.—*C. E. Henry* (U. S. Naval Reserve).

1519. Gamble, C. J. State sterilization programs for the prophylactic control of mental disease and mental deficiency. *Amer. J. Psychiat.*, 1945, 102, 289-293.—The author presents statistics on the use of selective sterilization by states wherein the practice is legalized. To date, Delaware has made most extensive use of selective sterilization with 238 tubectomies per 100,000 inhabitants. The states of California, Virginia, Kansas, and Oregon follow in order. An important obstacle in the path of more widespread use of this form of prophylaxis, according to the author, is the lack of understanding by the public of the differences between sterilization and castration.—*R. D. Weits* (Jersey City, N. J.).

1520. Hildreth, H. M., & Hill, J. M. A neuropsychiatric questionnaire for group examining. *Nav. med. Bull., Wash.*, 1945, 45, 895-902.—A questionnaire which is essentially a group method of conducting a preliminary psychiatric interview is printed in toto. Results obtained with the questionnaire were as reliable and valid as those obtained through interviews.—*R. O. Rouse* (U. S. Army Air Forces).

1521. Hofstatter, L., Smolik, E. A., & Busch, A. K. Prefrontal lobotomy in treatment of chronic psychoses with special reference to section of the orbital areas only. *Arch. Neurol. Psychiat., Chicago*, 1945, 53, 125-130.—"In a series of 22 patients with mental disorders, chiefly paranoid schizophrenia, a satisfactory therapeutic result was obtained with a modified technique of prefrontal lobotomy, in which only the orbital areas were sectioned." It is noted that the "orbital areas of the frontal lobes seem to have a role in regulation of the emotions."—*K. S. Wagoner* (DePauw).

1522. Hunt, W. A. The detection of malingering: a further study. *Nav. med. Bull., Wash.*, 1946, 46, 249-254.—A test containing items from the Cornell Selectee Index and the Shipley Personal Inventory

was given to 87 normal sailors who were instructed to act as malingerers and to 54 men discharged for neuropsychiatric reasons. The 'malingerers' scored significantly higher than the neuropsychiatric group. The scores of malingerers, mental deficient, and chronic and mild schizophrenics on an intelligence test are also compared. Malingering is easy to detect on psychological tests.—*R. O. Rouse* (U. S. Army Air Forces).

1523. Katz, E. A social therapy program for neuropsychiatry in a general hospital. *Psychol. Bull.*, 1945, 42, 782-788.—The writer describes the social therapy program for both "open" and "closed ward" patients. The use of mass, group, and individual psychotherapy in this program is depicted.—*S. Ross* (U. S. Naval Reserve).

1524. Kelley, D. M. The autobiographical study as an aid to psychotherapy. *Amer. J. Psychiat.*, 1945, 102, 375-377.—The author discusses autobiography as a diagnostic and therapeutic tool in psychiatry. He points out that: (1) it is a source of information; (2) it is of diagnostic value with reference to the quantity and form of the patient's writing; (3) it saves time by spotlighting the nature of the disturbing problems; (4) it gives the man in service a chance to ventilate his troubles; (5) it helps the individual to crystallize his concepts; and finally (6) it aids the individual in knowing that he is doing something for himself.—*R. D. Weits* (Jersey City, N. J.).

1525. Kozol, H. L. Pretraumatic personality and psychiatric sequelae of head injury; categorical pretraumatic personality status correlated with general psychiatric reaction to head injury based on analysis of two hundred cases. *Arch. Neurol. Psychiat., Chicago*, 1945, 53, 358-364.—"In 200 cases of head injury the categorical pretraumatic personality was found to have little, if any, correlation with the incidence of post-traumatic mental symptoms. There was a significant correlation between the incidence of post-traumatic mental symptoms and the existence of complicating psychosocial factors."—*K. S. Wagoner* (DePauw).

1526. Lennox, W. G. Mental defect in epilepsy and the influence of heredity. *Amer. J. Psychiat.*, 1942, 98, 733-739.—This study of over 1,900 extramural epileptics shows that, despite the fact of normal mentality in 64% and definite deterioration in only 14% and the fact that the average patient experienced some 2,000 seizures in an 8-year period, mental impairment and seizure tendency are related. The relatives of the essential epileptics show both more epilepsy and more neuropsychiatric disorder, particularly in the fathers of such patients. The relationship between seizures and mental impairment is most pronounced in the relatives of those patients whose epilepsy was manifest early in life.—*C. E. Henry* (U. S. Naval Reserve).

1527. Lewis, N. D. C. Prognostic significance of certain factors in schizophrenia. *Arch. Neurol. Psychiat., Chicago*, 1945, 53, 241-242.—Abstract.

1528. Lurje, Z. L. [Emotional and intellectual disorders in lesions of the hypothalamus.] *Vop. sotsial. klin. Psikhonevrol.*, 1941, 6, 406-421.—A. Yarmolenko (Leningrad).

1529. McKeon, R. M. Mentally retarded boys in war time. *Ment. Hyg.*, N. Y., 1946, 30, 47-55.—From 1932 through 1942, 1,055 boys had left a special-class center for mentally retarded boys in an industrial city in New England. Every fifth one was taken for a follow-up study by personal call at his home by the investigator, resulting in a group of 210 boys of IQ 52 to 83, with few having progressed beyond the fourth grade. It was found that 113 were on active duty with the armed forces, 76 were at work in the same city, 8 were in institutions, 7 still in school, 1 was an invalid, 1 was discharged after 17 months of USMC duty, and 4 were dead. Median weekly wage of the employed was \$48, the range being \$35 to \$72. One fifth of the group had been employed 100% of the time since leaving school, less than 25% had ever appeared in court, and slightly more than 10% had spent time in an institution for reform.—W. L. Wilkins (U. S. Naval Reserve).

1530. MacLean, P. D., Moore, M., & Crocker, D. Tropical psychiatry. *Bull. U. S. Army Med. Dep.*, 1945, 4, 551-553.—One hundred cases of soldiers who had been transferred back to the U. S. because of psychiatric illness are compared with regard to nervous factors in family and past history with 1,000 successful soldiers, all of whom had been through at least one campaign. "The results indicate that there was not a striking difference in the nervous heritage and nervous background." There was however "a greater incidence of neurotic traits and phobias among the neurotic group."—R. O. Rouse (U. S. Army Air Forces).

1531. Malamud, D. I. Value of the Maller Controlled Association Test as a screening device. *J. Psychol.*, 1946, 21, 37-43.—Weighting of items and setting of a new cutting score made possible the correct identification of 87% of patients and 77% of normals in groups of 100 normals and 100 abnormals. Split-half reliability varied from .79 to .94. The weighted score discriminated with statistical significance between groups of normals, good status patients, and poor status patients. It is pointed out that the test is potentially valuable for screening purposes and that a pattern scoring system might be useful.—R. B. Ammons (Syracuse).

1532. Mastrangelo, G. Moderne prospettive psicologiche in psichiatria. (Modern psychological trends in psychiatry.) *Arch. Psicol. Neurol. Psichiat.*, 1945, 6, 206-225.—The author reviews the more important contributions of modern psychological schools to the field of psychiatry and stresses the significance of the psychoanalytic and social approaches to mental disease, including the value of such concepts as level of organization and functional integration. Adequate understanding of the pre-psychotic personality, active psychotherapy, and social mental hygiene are basic principles in the

development of contemporary psychiatry.—R. Calabresi (Hunter).

1533. Mayers, A. N. Dug-out psychiatry. *Psychiatry*, 1945, 8, 383-389.—The problems, the uses, and the effectiveness of psychiatry under front-line conditions are discussed. The conclusion is offered that wartime psychiatry has achieved a new orientation for psychiatry in general, namely, the recognition of the value of psychotherapy for the 'normal' person, the utilization of psychological methods to better and to maintain mental health, and an appreciation of psychiatry in rehabilitation problems.—M. H. Erickson (Wayne County Gen. Hosp. & Infirmary).

1534. Meller, E. N., & Shachnovitch, R. A. [A case of agnosia and constructive apraxia, with a peculiar form of disorder of eye movement.] *Vop. sotsial. klin. Psikhonevrol.*, 1941, 6, 422-432.—A. Yarmolenko (Leningrad).

1535. Menninger, W. C. Perspectives of psychiatry. *Ann. intern. Med.*, 1945, 22, 170-181.—The world has been experiencing a mass psychosis of a scope and malignancy hitherto unknown. Menninger discusses the applications to civilian practice of the perspectives gained from military psychiatry. Among these are the intimate relationship of psychiatry to other fields of medicine and the practice of group psychotherapy. We are thereby learning how to influence the attitude, motivation, and behavior of groups and to recognize the effect of the individual on the whole. Other contributions are: rapid methods for determination of stability, emotional maturity, intellectual capacity, and sense of social responsibility; evaluation of adjustment under great stress (although the military and civilian situations are not comparable), the relative importance of various developmental factors, and integration of the personality in attempts to adjust. Concrete suggestions arising from these perspectives are made in regard to selection of medical students and reorientation of the curriculum; closer contacts of medical assistants with medicine; inclusion of mental health in every preventive medicine program; study of the patient's emotional life before and after specific treatment; and the profession's initiative in spreading concepts of mental health.—M. E. Morse (Baltimore, Md.).

1536. Moore, M., & MacLean, P. D. Treatment of mentally disturbed soldiers overseas. *Bull. U. S. Army med. Dep.*, 1944, No. 80, 113-118.—The neuropsychiatric ward of an overseas general hospital and the treatment procedures employed in it are described.—R. O. Rouse (U. S. Army Air Forces).

1537. Moreno, J. L. Psychodramatic treatment of psychoses. *Psychodrama Monogr.*, 1945, No. 15. Pp. 18.—See 14: 5043.

1538. Moreno, J. L. Psychodrama and the psychopathology of inter-personal relations. *Psychodrama Monogr.*, 1945, No. 16. Pp. 68.—See 12: 311.

1539. Morselli, G. E. Afasia e psicologia della forma. (Aphasias and Gestalt psychology.) *Arch.*

Psicol. Neurol. Psychiat., 1945, 6, 101-110.—In the field of aphasia, the importance of emotion and mental content as a whole is stressed as well as the significance of motor and auditory images minimized by such scientists as Jackson and Goldstein. Observations on cases of semantic aphasia suggest that what is lost is not the verbal symbol in itself but the symbol as it is connected to a more general mental function. The deficit is not to be found in the field of memory or association; it involves spatial, logical, and time relations connected with the speech function.—*R. Calabresi* (Hunter).

1540. Needles, W. The successful neurotic soldier. *Bull. U. S. Army Med. Dep.*, 1945, 4, 673-682.—An analysis for neuropsychiatric treatment prior to entry into the service and for incidence of 8 neurotic traits in childhood of the background of 200 soldiers who broke down in combat showed no difference in these factors among 5 groups: those who had 1-15 days in combat; 16-30 days; 31-60 days; 61-90 days; and over 90 days. In the operations covered, a survival period for any soldier of 60 days was unusual. Accordingly, a detailed survey was made of 17 neurotic soldiers with long combat experience. The case reports of 7 of these are presented in an attempt to show what enabled them to continue. Self-destructive impulses, conscious striving, vengeance for the death of a buddy, and a childhood pattern of obedience are some of the possible causes for success of neurotics in battle. It is difficult to devise a rigid abbreviated screening process which will indicate neurotics who are likely to be successful or unsuccessful in the army.—*R. O. Rouse* (U. S. Army Air Forces).

1541. Pflugfelder, G. Der Silbenergänzungsversuch. (Syllable-completion experiment.) *Schweiz. Arch. Neurol. Psychiat.*, 1945, 55, 300-305.—To each of 128 initial syllables, the subjects reacted with a complete word. The purpose of the experiment was to ascertain whether anything is yielded in the way of a diagnostic delimitation of schizophrenics, manic-depressives, and psychopaths, as well as the feeble-minded and forms of dementia (lentic and other organogenic forms). Subjects were mostly male and between 18 and 50 in age. More valuable than the statistical tabulation of the frequencies of nouns, verbs, and adjectives was the discernment of mood, affect, and complex in the individual case afforded by this syllable-completion experiment.—*F. C. Sumner* (Howard).

1542. Prados, M. Fright and anxiety states in war psychiatry. *McGill med. J.*, 1944, 13, 157-162.—Fright and anxiety neuroses are two separate clinical pictures which differ from each other in etiology, symptomatology, and required treatment. Fright neurosis is an acute psychopathological reaction to profound catastrophe, the morbid manifestations of which are greatly exaggerated, but qualitatively it represents normal reactions to a frightening experience. Conversely an anxiety neurosis is a chronic syndrome in which acute phases may occur. It has its origin in early life, emotional

difficulties and maladjustments forcing the individual to build up certain neurotic trends to cope with life. The author elaborates on these basic theses and discusses the problem in relation to war neuroses and war hysteria.—*P. Kellaway* (McGill).

1543. Price, H. G., & Corcoran, L. Work therapy in a private neuro-psychiatric hospital. *Occup. Ther.*, 1945, 24, 155-159.—*G. S. Speer* (Illinois Inst. Tech.).

1544. Redlich, F. C. Organic and hysterical anesthesia; a method of differential diagnosis with the aid of the galvanic skin response. *Amer. J. Psychiat.*, 1945, 102, 318-324.—The galvanic skin response (GSR) was tested in 7 patients with organic interruption of the peripheral sensory pathway, in 1 patient with complete transection of the spinal cord and in 7 patients with hysterical anesthetics. No GSR could be obtained on stimulation of the anesthetic zone by pin prick and light touch in the cases of organic impairment; whereas, normal GSR was found in all of the hysterical cases. The test used was thus found to be a good method of differentiation between organic and functional hysterics.—*R. D. Weitz* (Jersey City, N. J.).

1545. Robinson, G. C. Proper attention to the rôle of emotional and social factors in illness as a new step in public health. *Milbank mem. Fd Quart.*, 1945, 23, 20-27.—See 19: 1504.—*M. E. Morse* (Baltimore, Md.).

1546. Robinson, L. J. The electroencephalogram in some military and selective service convulsive and non-convulsive problems. *Amer. J. Psychiat.*, 1945, 102, 305-310.—Findings are presented for 92 males whose neuropsychiatric characteristics varied from a history of observed convulsions to cases of "vague nervousness" or "vague fainting spells." Of 20 subjects with a history of convulsions observed by other than military personnel, abnormal EEG findings were observed in 50%; of 41 subjects with a self-claimed history of rare convulsions, abnormal EEG patterns were observed in 43%; of 9 subjects with a history of "fainting attack" in the military service, the EEG was abnormal in 55.6%; of 12 subjects with episodes of faintness but with retention of consciousness, only 8.3% showed an abnormal EEG; and of 10 cases considered to be malingerers—showing "vague nervousness" and "vague fainting spells"—the EEG was found to be abnormal in only 10% of the group. The author concludes "that the electroencephalogram was of assisting value in the neuropsychiatric diagnosis of non-convulsive and convulsive problems."—*R. D. Weitz* (Jersey City, N. J.).

1547. Rosner, A. A. The neuropsychiatrist and convalescent training program of Army Air Forces. *Bull. U. S. Army med. Dep.*, 1944, No. 78, 93-97.—An experimental recreation and reconditioning program working in conjunction with a mental hygiene office is described. It provided the psychiatrist an interesting and provocative method of approach to the problem of military morale. "It is too early to assess the value of the project."—*R. O. Rouse* (U. S. Army Air Forces).

1548. Sexton, M. C. The autokinetic test: its value in psychiatric diagnosis and prognosis. *Amer. J. Psychiat.*, 1945, 102, 399-402.—The theory and clinical application of the autokinetic test are discussed. The test, which involves tracing of the path of the apparent movement of a beam of light, indicates that those with schizoid make-up tend to observe much greater movement than do the extraverted personalities. The author observes that this finding may prove to be a valuable adjunct to psychiatric diagnosis and prognosis.—R. D. Weits (Jersey City, N. J.).

1549. Snyder, L. H., Schonfeld, M. D., & Offerman, E. M. A further note in the Rh factor and feeble-mindedness. *J. Hered.*, 1945, 36, 334.—In blood from 47 additional (see 19: 1506) cases of undifferentiated mental deficiency and their mothers, the high frequencies of Rh— mothers, and of Rh+ children from Rh— mothers, were not maintained. In a total of 113 mothers and their 115 feeble-minded children, 24 mothers were Rh—, and 16 children were Rh+ from Rh— mothers. The deviation in regard to Rh+ children of Rh— mothers is now "significant" rather than "highly significant."—G. C. Schwesinger (War Relocation Authority).

1550. Stevenson, L., & Mikalson, A. E. A speech pathology program for Naval hospitals. *Psychol. Bull.*, 1945, 42, 779-781.—The goals, organization, and activities of a supplementary program of specific speech correction in Naval hospitals are described. Four short case histories are included.—S. Ross (U. S. Naval Reserve).

1551. Van der Heide, C., & Weinberg, J. Sleep paralysis and combat fatigue. *Psychosom. Med.*, 1945, 7, 330-334.—The authors present case studies of sleep paralysis developed by three returned Air Force men who suffered from combat fatigue. In none of the cases was narcolepsy, catalepsy, or sleep-walking present. Differences between sleep paralysis and somnambulism and hysterical paralyses were noted. All three men "suffering from an emotional disorder precipitated by combat were intensely disturbed by confusion as to their emotional direction." Indecisiveness was a striking behavioral characteristic.—P. S. de Q. Cabot (United Drug, Inc.).

1552. Wagner, W. Vorwissenschaftliche Einflüsse in der medizinischen Psychologie, dargestellt an der Lehre vom Phantomglied. (Prescientific influences in medical psychology as exhibited in the theory of the phantom organ.) *Nervenarzt*, 1944, 17, 6-15.—The amputee's illusion of a phantom organ somewhat modified in size is persistently experienced by the mentally healthy person over a long period of time despite the fact that experience and visual perception clearly convince him of the absence of the organ. Both peripheral and central factors contribute to this illusion. The fact that, even after severance of dorsal spinal fibers and occasionally of ventral spinal fibers running to and from the stump, the illusion later reappears seems to indicate its major origin as central. Moreover, the author believes the truly

scientific explanation of this illusion involves a dynamic conception of consciousness as capable (1) of reifying organs where actually absent but needed or (2) of anesthetizing organs where actually present but not needed. According to this psychogenic theory the world is not built up in us by our sensations, but rather the objective world is more or less molded by our consciousness. The author rejects as a hangover of prescientific bias towards materialism all objective, sensualistic, *res extensiva* explanations of this phantom organ illusion, which began with Descartes and were continued by Pavlov, Foerster, and singularly Schilder.—F. C. Sumner (Howard).

1553. Wilder, J. Facts and figures on psychotherapy. *J. clin. Psychopath. Psychother.*, 1945, 7, 311-347.—"A study of figures published from various sources shows that the differences in the results of psychotherapy between hospitals, clinics, psychoanalytic institutes and private psychoanalysts and psychotherapists are not too impressive, especially when the cases are followed up after their discharge. Clinics seem to have the poorest results. The figures in general psychotherapy, including psychoanalysis, appear to be the best, but the number of cases is too small for definite conclusions in this article. The difficulties of evaluation are discussed in detail. The magnitude of the problem of psychoneuroses in the United States is illustrated, and at the same time the inadequacy of facilities for treatment and training is emphasized. For these, and for economic reasons, psychoanalysis must to a very great extent be supplemented by other methods of psychotherapy in clinics, hospitals and private practice. Recommendations in this direction are made, especially as far as teaching and training are concerned."—C. E. Henry (U. S. Naval Reserve).

1554. Wolberg, L. R. A mechanism of hysteria elucidated during hypnoanalysis. *Psychoanal. Quart.*, 1945, 14, 528-534.—An account is given of the use under hypnosis of hypnotic and free association techniques in the discovery and correction of a childhood trauma leading to an hysterical anesthesia in an alcoholic patient who was undergoing hypnoanalysis.—M. H. Erickson (Wayne County Gen. Hosp. & Infirm.).

[See also abstracts 1333, 1367, 1372, 1424, 1440, 1448, 1449, 1456, 1461, 1492, 1493, 1557, 1568, 1569, 1621, 1622, 1629, 1643, 1644, 1654, 1712, 1718.]

PERSONALITY AND CHARACTER

1555. Adams, C. R., & Lepley, W. M. Personal audit, (revised), forms LL and SS. Chicago: Science Research Associates, 1945. Form LL, 25 copies, \$3.75; specimen set, 35c. Form SS, 25 copies, \$2.50; specimen set, 25c.—See 15: 4702; 20: 470.

1556. Bergler, E. Psychology of "bad influence" and "good advice." *Dis. nerv. Syst.*, 1946, 7, 51-54.—The effect of good advice and bad example on an individual is essentially a problem of unconscious identification. Other (usually extraneous) factors

must have preceded to prepare the situation leading to the identification. Good advice so frequently conflicts with our own childish megalomania that it is consequently unacceptable and ineffective. Only when "facts" fit the personality of the individual are they effective in modifying behavior, as when a normal person identifies with his educators and accepts their advice.—C. E. Henry (U. S. Naval Reserve).

1557. Berlucchi, C. *Malati sintonici e malati autistici, caratteri aperti e caratteri chiusi, temperamenti ciclotimici e temperamenti schizotimici, tipi extravertiti e tipi introvertiti, soggetti integrati e soggetti sinestesici nella moderna psichiatria e caratterologia.* (Syntonic and autistic patients, outgoing and shut-in types of personality, cycloid and schizoid temperaments, extroverts and introverts, integrated and synesthetic individuals, according to modern psychiatry and characterology.) *Arch. Psicol. Neurol. Psichiat.*, 1944, 5, 161-214.—The importance of the individual's attitude toward reality has been stressed by modern psychiatry and characterology. The author discusses the theories of Kretschmer, Bleuler, Pfahler, Jung, Klages, and Kunkel, all of which have helped to define the relations between biological factors and psychological structure and have led to a close collaboration of psychological and psychiatric research. However, a clearer and more precise definition of basic concepts is needed.—R. Calabresi (Hunter).

1558. Bossard, J. H. S. *The bilingual as a person—linguistic identification with status.* *Amer. sociol. Rev.*, 1945, 10, 699-709.—Seventeen case studies of bilingual persons were analyzed to determine the effect of the bilingualism on family relations, child development, use of protective devices (compensations), and other matters. It is felt that the data show the importance (as a social process) of the assignment of status to an individual on the basis of his linguistic behavior.—C. N. Cofer (U. S. Naval Reserve).

1559. Bratbak, J. *Karaktermåling.* (Character measurement.) *Norsk ped. Tidskr.*, 1942, 26, 140-145.

1560. Brotemarkle, R. A. *Problems in the description of personality. I. Sociability or "extroversion-introversion."* *Trans. N. Y. Acad. Sci.*, 1945, 8, 11-25.—An analysis of the trait relationships in the syndrome of extroversion-introversion in Cattell's "sphere of personality" emphasizes the necessity of more precise description of personality patterns.—F. W. Finger (Virginia).

1561. Burt, C. *Personality, a symposium. I. The assessment of personality.* *Brit. J. educ. Psychol.*, 1945, 15, 107-121.—In this evaluation of techniques for the measurement of personality, the author postulates an eclectic concept of personality as "a dynamic, integrated, purposive whole" which can be studied most productively by an approach that is both analytic (cross-sectional) and synthetic (longitudinal). Data obtained from an intensive study of 183 school children, aged 12-14, provide an

opportunity for determining the reliability of personality assessments obtained by three main procedures: (a) informal but systematic interviews; (b) paper and pencil tests of the "indirect" type; and (c) observations of behavior in standardized real-life situations. Reports from teachers, parents, and social workers constitute a further source of information and are the basis of the criteria for evaluating the psychological techniques. Correlations between assessments and criterion-ratings reveal that judgments combining all three procedures are far superior to those based on any one alone. Of the special techniques, the greatest validity is accorded to observations under real-life conditions, while the interviews prove more objective than the tests. The reliability and validity of formal tests of temperament are considerably lower than in the case of tests of cognitive abilities, and the value of such tests lies mainly in offering starting points for follow-up in the interview.—R. C. Strassburger (St. Joseph's College for Women).

1562. Bychowski, G. *Oliver Cromwell and the Puritan Revolution.* *J. clin. Psychopath. Psychother.*, 1945, 7, 281-309.—The political and religious events of the Puritan Revolution, leading to the execution of King Charles I and the replacement of the old parliament and Catholicism by a dictatorship headed by Cromwell, are examined from the viewpoint of a psychoanalytic interpretation of Cromwell's character.—C. E. Henry (U. S. Naval Reserve).

1563. Cattell, R. B. *Personality structure and measurement. I. The operational determination of trait unities.* *Brit. J. Psychol.*, 1946, 36, 88-103.—Trait unities are established by covariation of parts and can be classified first into *common* and *unique* traits and secondly into *surface* traits (correlation clusters) and *source* traits (factors). In studying covariation by factor analysis, the factors corresponding to psychologically meaningful functional unities can be distinguished from others by the method of parallel proportional profiles. There are basically 6 and secondarily 12 sources of covariation data, expressible in a covariation chart, which can be used to provide independent correlation matrices for the above method. It is meaningless to say that some factors represent real unities and that others are merely imaginary. All are real, but they may be arranged in a hierarchy according to degrees of efficacy. The task of psychological comprehension and prediction demands the discovery of trait unities of a high degree of efficacy.—M. D. Vernon (Cambridge).

1564. Del Torto, J., & Cornyetz, P. *Psychodrama as expressive and projective technique.* *Psychodrama Monogr.*, 1945, No. 14. Pp. 22.—See 19: 1718.

1565. Franck, K. *Preferences for sex symbols and their personality correlates.* *Genet. Psychol. Monogr.*, 1946, 33, 73-123.—"To investigate the relationship between attitudes toward sex and personality structure, preference for male or female sex symbols was correlated with responses on a

personality questionnaire. Pairs of pictures each showing one male and one female symbol were presented to 119 female undergraduates, who indicated their 'aesthetic' preference in each pair. Scores were assigned to the female symbols. The group was divided into a low and a high half. Relationships between responses to each of the questionnaire items and both the score groups were tested by the Chi Square method. Sixteen questionnaire items proved significant at the 5 per cent level or better. Considering all of these differences together, it was concluded that girls preferring male symbols were more mature, i.e., accepted their role as women and accepted men as their counterpart, while girls preferring female symbols were less mature."—*L. Long* (City College of New York).

1566. Giglio de Pinto, N. A. *La personalidad*. (The personality.) *Rev. Educ., La Plata*, 1945, 87, No. 4, 48-50.—*H. D. Spoerl* (Jeffersonville, Vt.).

1567. Johnson, R. H. *Johnson temperament analysis*. Los Angeles: California Test Bureau, 1944. 25 tests, \$1.25; specimen set, 25c.

1568. Kazan, A. T., & Sheinberg, I. M. *Clinical note on the significance of the Minnesota Multiphasic Personality Inventory*. *Amer. J. Psychiat.*, 1945, 102, 181-183.—Test observations were made in an army personnel consultation service on patients who manifested maladjustments ranging over a wide area of psychopathological states. Most of the group fell in the age range of 18 to 38 and was comprised mostly of soldiers with morbid personalities. The authors conclude that a high F score on the Minnesota Multiphasic Inventory is only very rarely an invalidating factor in the consideration of abnormal subjects, as generally it indicates the presence of significant and often severe psychiatric disease. The authors observe that much more controlled work must be done in this vein before the F score can be accepted as a definitive part of the inventory.—*R. D. Weitz* (Jersey City, N. J.).

1569. Koff, S. A. *The Rorschach test in the differential diagnosis of cerebral concussion and psychoneurosis*. *Bull. U. S. Army med. Dep.*, 1946, 5, 170-173.—One hundred eighty-five patients were tested for cerebral concussion by both the Rorschach and spinal fluid examinations. The Rorschach indicated organic pathology in 67 of 75 cases whose spinal fluid protein level also indicated organic pathology, and it indicated psychoneurosis in 89 of 100 cases whose spinal fluid protein level was below the critical level for organic pathology. The Rorschach is a valuable aid in the differential diagnosis of cerebral concussion and psychoneurosis, especially in areas where spinal punctures and laboratory procedures cannot be performed.—*R. O. Rouse* (U. S. Army Air Forces).

1570. Rosenzweig, S., Clarke, H. J., Garfield, M. S., & Lehndorff, A. *Scoring samples for the Rosenzweig Picture-Frustration Study*. *J. Psychol.*, 1946, 21, 45-72.—Fifty normal males, 50 normal females, and 50 mental patients were given the

Picture-Frustration Study test. Responses were scored in terms of type of reaction (obstacle dominance, ego-defense, and need-persistence) and in terms of direction of response (extrapunitive, intropunitive, and impunitive). Nine or more scored sample responses are given for each of the 24 picture-situations in the test. Samples are given in the hope that scoring errors will be reduced and that the test will be improved as an instrument for research. Responses not covered are to be compared with the samples according to meaning and scored in terms of the usual categories.—*R. B. Ammons* (Syracuse).

[See also abstracts 1474, 1522, 1525, 1587, 1596, 1607, 1609, 1610, 1656, 1684, 1712, 1719, 1722.]

GENERAL SOCIAL PROCESSES

(incl. Aesthetics)

1571. Alexander, C. *Antipathy and social behavior*. *Amer. J. Sociol.*, 1946, 51, 288-292.—Much of human behavior may be called negative, since it involves avoidance. This behavior is in part rational or intentional, but much of it is nonrational antipathies. Though common, antipathies usually function below the level of attention. They appear to resemble allergies but with significant differences. Antipathies are important in interpersonal relationships and frequently are related to the conception of individuals. They are, then, a stubborn element in prejudices.—*D. L. Glick* (Arlington, Va.).

1572. Allport, G. W. *Catharsis and the reduction of prejudice*. *J. soc. Issues*, 1945, 1, No. 3, 3-10.—During an 8-hour course on race relations, Allport noted hostility on the part of the class toward himself, though it diminished by the last session. The hostility was seen as a means of testing the instructor, of avoiding the threat to personal status, and of projecting guilt. The catharsis was valuable in producing opportunity for insight by students into their exaggerations, for release of troubles, and for restructuring attitudes. Though the instructor is unable to guide the catharsis, his teaching becomes effective if he does not attempt to counter the opposition.—*L. M. Hanks, Jr.* (Bennington).

1573. [Anon.] *The scapegoat in modern Europe*. *Nature, Lond.*, 1945, 156, 380-382.—This article reviews a discussion of scapegoatism. Since the use of scapegoats is a particular kind of displacement or projection of aggression, suffering, and particularly of guilt, a full psychological understanding of scapegoatism necessitates a knowledge both of projection and of the role of punishment. "Projection (the attribution to others of qualities in ourselves) arises from, and in some sense perpetuates, the confusion between the self and not-self to which child psychologists have directed attention. . . . There is in the human mind a deep tendency to expect, and indeed to demand, that guilt should be atoned for by punishment. . . . Some persons are more inclined to blame and inflict punishment on themselves, others

to project the blame and inflict vicarious punishment." The remaining discussion is of an anthropological and sociological nature.—*A. C. Hoffman* (Tufts).

1574. Born, W. Unconscious processes in artistic creation. *J. clin. Psychopath. Psychother.*, 1945, 7, 253-272.—The author applies the terminology and the concepts of psychoanalysis to art (largely painting) in an attempt to rationalize artistic standards and motivations. The formative part of an artistic creation is conscious, while the unconscious is responsible for the inspiration that characterizes true art. The artist is viewed as a universal therapist for a sick mechanistic world, and various old philosophies are cited in support of this assertion. The melancholy artist epitomizes the unhappy world longing for the tranquil perfection of childhood, disturbed by the aftereffects of puberty, and seeking to recapture this beauty in his creative life. Other men attempt to achieve this result by seeking new scenes, the cause of all nonutilitarian traveling.—*C. E. Henry* (U. S. Naval Reserve).

1575. Bose, F. Klangstile als Rassenmerkmale. (Tonal styles as racial characteristics.) *Z. Rassenk.*, 1944, 14, 208-224.—On the basis of his studies, the author denies that style of tone and vocal timbre are unequivocally determined by race. Among his examples he cites that yodeling is found among such divergent racial groups as mountaineers in the Alps, the Caucasus, and the Scandinavian mountains. In addition to geographical and sociological factors, sex and age are determiners of tonal differences. However it is claimed that the vocal timbre of two Negroes who had been living in Germany for decades was the same as that observed in African phonograph records. The article is the second of a series of three.—*H. L. Ansbacher* (Brooklyn).

1576. Burgess, E. W., & Locke, H. J. The family: from institution to companionship. New York: American Book Co., 1945. Pp. xvi + 800. \$4.25.—The thesis of this textbook is that the family is in transition from an institution to a companionship. The emphasis is on the family as a unity of interacting persons that shapes the personality development of its members and is itself adaptable to change. The ideal-type method is employed; there is an extensive use of personal documents. Part I, The Family in Social Change, presents the changing family patterns in five different situations. Part II, The Family and Personality Development, discusses the ways in which interaction within the family stimulates or frustrates the personality growth of its members. It considers the effects on personality development of cultural and psychogenic conditioning within the family; the effects of parental expectations on children; and the role of the family in determining how fundamental wishes will find expression. Part III, Family Organization, discusses courtship and mate selection, marital success and adjustment, and family unity, emphasizing the interaction of family members as a vital element. Part IV, Family Disorganization and Reorganization,

treats disorganization as a result of transition in the family and the larger society.—*H. A. Gibbard* (Brown).

1577. Clark, G., & Birch, H. G. Hormonal modifications of social behavior. I. The effect of sex-hormone administration on the social status of a male-castrate chimpanzee. *Psychosom. Med.*, 1945, 7, 321-329.—In a food-competitive situation, the effects of the administration of male and female sex hormones on the dominance status of a male prepubertal castrate chimpanzee paired with an intact male showed that: (1) the social dominance of the castrate was enhanced by male sex-hormone therapy; (2) female sex therapy resulted in the subordination of the castrate's social status; (3) well-established habits of social response were induced by and persisted after hormone administration; and (4) appropriate hormonal treatment produced reversed habits of response. The authors present tentative hypotheses to account for the interaction of social behavior and hormonal action.—*P. S. de Q. Cabot* (United Drug, Inc.).

1578. Dougherty, N. F. Leadership for tomorrow. New York: House of Field-Doubleday, 1945. Pp. 183. \$2.00.

1579. Eugenics Society. Royal Commission on Population. *Eugen. Rev.*, 1945, 37, 92-104.—A positive population policy should take qualitative consideration into account. To realize eugenic aims, the following five characteristics should be sought: sound physical and mental health; good physique; social usefulness; freedom from genetic taints; fondness for children; and membership in a large, well-adjusted family. Of these, only intelligence is measurable quantitatively. A social index would include the presence of all characteristics. Eugenic selection operates best in a favorable environment, which in itself includes the removal of social and economic deterrents to parenthood, up-to-date scientific guidance on genetic problems, accessible knowledge as to the regulation of pregnancies, and certain social and economic changes to equalize the position of parents and childless persons. The creation of an institute of demographic studies with ample funds and staff is recommended.—*G. C. Schwesinger* (War Relocation Authority).

1580. Farnsworth, P. R. Musical eminence and year of birth. *J. Aesthet.*, 1945, 4, No. 2, 107-109.—The degree of eminence of men taken from a highly selected list of composers is largely unrelated to the length of time since their births or deaths. Yet the more the number of musicians who are catalogued as eminent, the more will be the likelihood that a greater proportion of composers from the centuries just past will appear among this number. In any listing of eminent composers, the median birth year precedes the modal year. The mode for two large musical encyclopedias was found to fall in the 1870's.—*P. R. Farnsworth* (Stanford).

1581. Grafton, T. H. Religious origins and sociological theory. *Amer. sociol. Rev.*, 1945, 10, 726-739.—This paper develops a theory of religious

origins. It is assumed that religion comes from human nature. Religion is here defined in simple terms ("the interaction of living personalities with symbols of assumed supernatural social objects"), and four conditions of its existence are stated. The primary end of the paper is to "show how the primary religious impulse arises, following in the main the analyses of human nature and reflective thought made by Cooley and Mead." Further aspects of the religious impulse are developed, and comments are made on several books written on the subject of religious origins.—C. N. Cofer (U. S. Naval Reserve).

1582. Greifer, J. L. Attitudes to the stranger; a study of the attitudes of primitive society and early Hebrew culture. *Amer. sociol. Rev.*, 1945, 10, 739-745.—The attitudes toward the stranger found in pre-literate societies and in early Hebrew society are contrasted. The friendly attitude toward the stranger seen in Hebrew society is ascribed to the many cultural contacts of the group, social changes within the group, to historic experiences (exiles), and to reinforcement and conceptualization of the notion by the prophets.—C. N. Cofer (U. S. Naval Reserve).

1583. Hammond, W. H. An analysis of youth centre interests. *Brit. J. educ. Psychol.*, 1945, 15, 122-126.—The recreational interests of a group of 140 adolescent boys and girls as expressed in a check list include a wide range of activities. Active and social interests claim the greatest attention, while the more intellectual and individual undertakings are less popular. Sex differences in the mean number of interests and in the order of preference are evident. Factorization of the correlations between interests indicates a common factor of general interest and a type factor pointing to a subdivision of athletic interests and intellectual or artistic interests. Boys are generally identified with those of the athletic type, while the majority of girls favor the artistic type. There is little relation between initial interests and continued attendance at the centre.—R. C. Strassburger (St. Joseph's College for Women).

1584. Heider, F. Attitudes and cognitive organization. *J. Psychol.*, 1946, 21, 107-112.—A logical discussion of the interaction of causal unit formations and attitudes is presented. The hypothesis is stated that: (a) a balanced state exists if an entity has the same dynamic character in all possible respects and (b) in the case of three entities, a balanced state exists if all three relations are positive in all respects, or if two are negative and one positive. After a discussion of examples, it is concluded "that a good deal of inter-personal behavior and social preception is determined—or at least co-determined—by simple cognitive configurations."—R. B. Ammons (Syracuse).

1585. Knowler, F. H. Graduate theses—an index of graduate work in the field of speech—XI. *Speech Monogr.*, 1945, 12, 1-8.—An index is listed, classified according to subject, of 166 graduate degrees in

speech and speech pathology.—W. H. Wilke (U. S. Naval Reserve).

1586. Knowler, F. H. Graduate theses—a combined index of reports of graduate work in the field of speech and dramatic art—XII, 1902-1944. *Speech Monogr.*, 1945, 12, 9-29.—A cumulative index is given of 2,526 graduate theses listed in preceding annual indexes, classified according to subject (personality, emotion, audiences, radio, speech pathology, etc.). A table facilitates reference to the annual index in which complete data on each thesis appeared.—W. H. Wilke (U. S. Naval Reserve).

1587. Leuba, C., & Lucas, C. The effects of attitudes on descriptions of pictures. *J. exp. Psychol.*, 1945, 35, 517-524.—Three subjects described a series of 6 photographs when under, in turn, the influence of each of 3 hypnotically induced attitudes: happiness, criticalness, and anxiety. An analysis of the ratings by 3 judges of the 54 brief descriptions indicated that these descriptions were significantly affected by the induced moods.—D. W. Taylor (Stanford).

1588. Lewin, K., & Grabbe, P. Conduct, knowledge, and the acceptance of new values. *J. soc. Issues*, 1945, 1, No. 3, 53-64.—The problem of re-education is viewed as an equivalent to cultural change. This requires more than knowledge of facts and change of sentiments, namely a change in the individual relation to the social world or in his superego. To accomplish this requires voluntary acceptance of new values by accepting membership in a group with culture embodying these values.—L. M. Hanks, Jr. (Bennington).

1589. Masuoka, J. Changing food habits of the Japanese in Hawaii. *Amer. sociol. Rev.*, 1945, 10, 759-765.—Records of food purchase of 100 Hawaiian Japanese families for 30 consecutive days were obtained in 1933-1934. The foods bought were compared with those purchased by rural Ohioans (1928) and with data for Japanese in Japan. Changes in diet were noted for the Hawaiian group, and the change was in the direction of adoption of American foods. It is felt that attitudinal factors are most significant in causing the change.—C. N. Cofer (U. S. Naval Reserve).

1590. Mitchell, C. Social stimulus value. *J. educ. Psychol.*, 1945, 36, 344-351.—High school children were asked to write in the name of a classmate who fitted into a category described on a chart entitled "Types of Persons I Have Met." There were 44 possible classifications, such as Alibi Ike, Goody-goody, Honest Type, Pussy-Foot, Tough. In two classes, numbering 75 and 72, the author found that there was considerable agreement in the selection of the individuals for the types and concludes that a person's social stimulus value tends to be relatively consistent.—E. B. Mallory (Wellesley).

1591. Mueller, J. H. Methods of measurement of aesthetic folkways. *Amer. J. Sociol.*, 1946, 51, 276-282.—The applicability of standard statistical

devices to the field of aesthetic folkways is explored. Orchestral repertoires of the leading symphony societies were analyzed from the date of founding to the present. Various statistical measures are here applied to selected segments of this history to illustrate the degree of consensus and difference of taste between cities; the weight of conductors and political events in the formation of taste; and the lag in taste between the élite and the popular audiences. Aesthetic taste, here treated empirically, not subjectively, is a complex phenomenon to which non-aesthetic factors make a large contribution.—*D. L. Glick* (Arlington, Va.).

1592. Opler, M. E. The bio-social basis of thought in the Third Reich. *Amer. sociol. Rev.*, 1945, 10, 776-786.—This is a summary of Hitler's social philosophy especially as regards its biological premises. The mass removal of those of Japanese ancestry from our own west coast during the war is cited as an example of similar thinking in this country.—*C. N. Cofer* (U. S. Naval Reserve).

1593. Paget, R. Is human speech good enough? *Nature, Lond.*, 1945, 156, 209-210.—Primitive man's early mode of communication was a general pantomime (in which the mouth took part) which described actions or states as a whole. "At some point in his unrecorded history, man must have hit upon a new way of mentally handling his impressions; he separated them into categories, such as shape, colour, number, etc., and symbolized each separate element by a distinctive pantomimic sign." Further improvement in human speech will require making it more quantitative and less ambiguous. Suggested changes in the English language to bring about this improvement are listed.—*A. C. Hoffman* (Tufts).

1594. Porteus, S. D. Racial group differences in mentality. *Tabul. biol., Haag*, 1939, 18, 66-75.—Several studies of race differences in intelligence employing a variety of tests are reviewed. In studies comparing Chinese, Japanese, and Hawaiian children living in Hawaii, the test results tend to indicate that, on the Binet type test and on test of auditory memory span, the Chinese excel the Japanese. In all performance tests the Japanese excel the Chinese. The predominantly Hawaiian and part Hawaiian groups are inferior to both the oriental groups. On the basis of these studies and other studies reported in which the intelligence of Australian, African, and Asiatic primitive groups are compared, the following general conclusions seem warranted: Real differences in mentality exist in the various racial groups, but no single race has any claim to absolute superiority for two reasons. In the first place there is such great variability in intelligence among the various divisions of each race that the differences among the divisions may be greater than the differences among races. Secondly, the development in mentality is not even. Race groups that excel on one type of test may be inferior on another type. Finally, these differences in intelligence are not to be ascribed entirely to environmental influences.—*G. A. Kimble* (Brown).

1595. Pressey, S. L. Changes from 1923 to 1943 in the attitudes of public school and university students. *J. Psychol.*, 1946, 21, 173-188.—"1. The study compares results obtained with tests of interests and attitudes, given from the sixth grade through the college senior year to over 1,700 individuals in 1943, with similar results obtained 20 years before, and from college students also in 1933. 2. From 1923 to 1943, the number of borderland issues of conduct regarded as wrong dropped markedly, but number of worries changed relatively little, and interests somewhat increased. 3. Changes from childhood to the later years of college were greater in '43 than in '23, especially in disapprovals. 4. Analysis by item indicated less condemnation of such minor vices as smoking, such sex-social conduct as flirting, such deviations from convention as in use of slang. There was less worry about natural phenomena such as storms, but more about popularity. Interest increased especially in social amusements. 5. Two major cultural trends are seen in the above findings: a gradual escape from old social taboos, inhibitions, and fears; and increased socialization."—*R. B. Ammons* (Syracuse).

1596. Prevey, E. E. A quantitative study of family practices in training children in the use of money. *J. educ. Psychol.*, 1945, 36, 411-428.—Information regarding parents' practices in teaching children the use of money was collected from 100 families of high-school seniors, and a follow-up study of later money habits of the subjects was made four years later. The Bell Inventory and the Stott Self-Reliance Scale provided data regarding personality correlates. It was found that, on the whole, boys received better training in the use of money than girls. Early money training showed significant correlation with adult money habits of boys, but no correlation was found for the girls. Adjustment and independence showed little relationship to early training in the use of money, but good home- and emotional-adjustment seemed to be of significance in the development of the ability to plan and manage income in early adulthood. 45-item bibliography.—*E. B. Mallory* (Wellesley).

1597. Pronko, N. H. An exploratory investigation of language by means of oscillographic and reaction time techniques. *J. exp. Psychol.*, 1945, 35, 433-458.—Fifty subjects were individually given in succession three tasks: (1) They were presented with a series of 6 slides and required to respond to each with the name of the object shown. (2) The same slides were presented, each with a nonsense syllable; the subjects associated the picture object and the syllable and then responded with the name of the object. (3) When the nonsense syllables were presented alone, the subjects responded with the name of the corresponding object. The reaction times were measured, and records of action potentials were obtained with the active lead over the right masseter muscle. The mean reaction time for the second task was significantly higher than for the first. After 20 practice trials, the mean reaction time for 33

subjects on the third task was reduced to about that for the first. This reduction is taken to indicate that with practice the language reaction becomes a direct rather than a symbolic response. The action potential data confirm the reaction time findings. 28-item bibliography.—*D. W. Taylor* (Stanford).

1598. Samelson, B. Does education diminish prejudice? *J. soc. Issues*, 1945, 1, No. 3, 11-13.—In an opinion survey of 2,523 whites, greater education was associated with greater information on Negro conditions but was not closely related to desires for realization of Negro rights. Education did not alter fundamental attitudes found in communities of residence.—*L. M. Hanks, Jr.* (Bennington).

1599. Schneider, J. Cultural lag: what is it? *Amer. sociol. Rev.*, 1945, 10, 786-791.—The concept of cultural lag as it is formulated by W. F. Ogburn is critically examined.—*C. N. Cofer* (U. S. Naval Reserve).

1600. Segerstedt, T. T. Ordens makt. En studie i språkets psykologi. (The power of words; a study in the psychology of language.) Stockholm: Natur och Kultur, 1944. Pp. 186. 6.50 Kr.—[Abstracted review; original not seen.] This book contains a survey of the most important current theories in the philosophy of language, as well as original contribution of the author. He maintains that language is a social habit and rejects both the instinct and the imitation theories. A distinction is drawn between habits or customs and norms or codes. Speech is a social habit; language is the system of norms which determine the individual's verbal reactions. The author follows such writers as F. Allport in his description of the development of language in the individual. Because words modify behavior and produce changes in the inner status of individuals, they may be said to have an "operational force"; this makes language of fundamental importance for the formation of social groups and the building of society. The author believes that a word has significance, in the proper sense, while a sentence has a function. Thus, a word may have one meaning but several functions.—*F. W. Irwin* (Pennsylvania).

1601. Segerstedt, T. T. Customs and codes. (I.) *Theoria*, 1942, 8, 3-22.—The current interest in customs has at least two sources: (1) the idea that moral philosophy is a descriptive science of morals, with its object the real behavior and valuation of man and (2) the controversy about instincts versus learned patterns. The central problem of the paper is the dual aspect of custom—as behavior and as pattern of behavior or that which regulates behavior. One attempt to explain custom as regulation lies in the notion of the normative power of factual behavior, which in turn presupposes an instinct to imitate. But all types of imitation can be shown to depend on social codes; that is, codes create the custom of obeying one's superiors. We learn to imitate. Even Tarde confuses suggestion with imitation, thus bringing in the factor of pressure from another person. Imitative behavior is thus not

purely spontaneous but, in part, is imposed. Nor do contrasts between law and custom, or between mores and folkways, parallel the distinction between behavior and imposed pattern of behavior, between custom and code.—*V. Nowlis* (Indiana).

1602. Segerstedt, T. T. Customs and codes. (II.) *Theoria*, 1942, 8, 126-153.—Social codes are normative, regulative, and obligatory, and are sometimes taken to be even natural and self-evident. They must have force behind them, even though the complying individual is unaware of the force. Codes sanctioned by individuals or groups of individuals are called rules of conduct; those sanctioned by organized social machinery, by society and its officials, are called rules of law. This distinction is not the same as that between rules automatically obeyed and those not so obeyed, or between written and unwritten rules. Secondary laws are the codes regulating the sanctions of the rules of law; they determine the behavior of officials, especially when they are using force. All codes not only demand certain behavior and forbid other but also demand certain behavior of officials or sanctioning agents. Codes are encountered in life as verbal expressions which involve the imperative, no matter how politely circumlocuted. Codes create customs, by way of habitual obedience to commands from parents, teachers, and associates. When systematized as social attitudes, codes construct the idea of reality. Analysis is made of the problem of why laws proclaimed by a conqueror and backed up by power, usually military might, "are able to regulate the behavior of a conquered people only to a certain extent."—*V. Nowlis* (Indiana).

1603. Simmons, L. W. The role of the aged in primitive society. New Haven: Yale University Press, 1945. Pp. vi + 317. \$4.00.—This comparative analysis, based on anthropological and historical sources of the status and treatment of the aged within a world-wide selection of 71 primitive peoples, seeks to determine ways in which positions of security and prestige have been accorded the aged by various societies and in what ways aged individuals have won such positions for themselves. One hundred nine physical and cultural characteristics (habitat, maintenance and economy; political and social organization; and religious and miscellaneous beliefs and practices) were studied to learn their prevalence. Then they were correlated with 112 characteristics related to status and treatment of the aged (divided by sex and by their participation in the culture and treatment they received) on a 5-point scale of importance for each of the 221 characteristics, taking full account of negative data. Eight additional chapters deal with the assurance of food; property rights utilizable by the aged; safeguarding of their prestige; routine activities of the aged related chiefly to economic functions and personal services; their civil and political activities; their reactions to knowledge, magic, and religion; their adjustments to family life; and treatment with respect to death. Extensive bibliography.—*R. W. Beebe* (Washington, D. C.).

1604. Smith, G. H. The interrelationships of attitudes toward Russia and some "general desires." *J. Psychol.*, 1946, 21, 91-95.—The Wickert Goal-Values Blank and the Smith Russian Attitude Scale were filled out by 193 psychology students in April, 1945. The only correlations approaching significance were .173 for New Experience and .155 for Freedom with favorable attitudes toward Russia. "Strong desire" and "weak desire" groups for each of the goal-values were contrasted. The strong Freedom, strong New Experience, and weak Security groups had attitudes significantly more favorable toward Russia. "In summary, the findings reported in this paper tend to support the hypothesis that there is some functional relationship between attitudes toward Russia and certain social motives (as defined by the Wickert Test), but these conclusions are best limited to pro- and anti-Russian groups."—R. B. Ammons (Syracuse).

1605. Spoerl, D. T. [The adjustment at college age of students who were bilingual in childhood.] *Vivo Bleter*, 1945, 26, 129-139.—The personality and ability patterns of Jewish students differed in no general respect from those of other bilinguals. Culture conflicts frequently found must be referred to factors other than bilinguality or Jewish origins.—H. D. Spoerl (Jeffersonville, Vt.).

1606. Strother, C. R. Methods of modifying behavior. *J. soc. Issues*, 1945, 1, No. 3, 46-52.—Individual behavior may be altered by changing its instigating conditions, the motivational systems, or the instrumental acts satisfying the needs. Group behavior may be modified through altered socioeconomic conditions, change in the status of individuals within the group, propaganda, arbitration and modifications of group atmosphere.—L. M. Hanks, Jr. (Bennington).

1607. Thorner, I. German words, German personality and Protestantism. *Psychiatry*, 1945, 8, 403-417.—The author examines certain of the relationships among language, personality type, social structure, and religious beliefs as exemplified in German and English-speaking societies on the assumption that the words of a language may offer clues to the basic personality structure of the society that created and uses that language. Emphasis is placed on coercion as displayed in Germany and, by contrast, in English-speaking societies. He concludes that the institutionalization of an affectional response in the family pattern would constitute the really radical German revolution. 74-item bibliography.—M. H. Erickson (Wayne County Gen. Hosp. & Infirm.).

1608. Thurstone, L. L. The prediction of choice. *Psychometrika*, 1945, 10, 237-253.—This paper is concerned with a central concept in social measurement such as opinion polls, the measurement of attitudes, the prediction of political elections, the measurement of moral values, the measurement of consumer preferences, the measurement of utility, and the measurement of aesthetic values. The concept is that of the discriminial dispersion and its

interesting effects in the prediction of choice.—(Courtesy *Psychometrika*).

1609. Tomašić, D. Personality development of the Dinaric warriors. *Psychiatry*, 1945, 8, 449-493.—A study is offered of the herdsmen and guerilla fighters in the Dinaric mountain zone located between the Morava River in Serbia and the Adriatic Sea. From the tribal organization of the Dinaric mountaineers developed first the Croat, Serb, and Montenegrin states and finally the new Yugoslavia. Discussion is offered under the topical headings of family organization, father-son relations, emotional instability, violence, deceit and distrust, blood vengeance, bandits and heroes, the position of women, marriage, sworn brotherhood and Godparenthood, beliefs and hallucinations, social differentiation, and tribal background. 187-item footnote bibliography.—M. H. Erickson (Wayne County Gen. Hosp. & Infirm.).

1610. Waehner, T. S. Interpretation of spontaneous drawings and paintings. *Genet. Psychol. Monogr.*, 1946, 33, 3-70.—The author reports the results of a study made of the drawings of 55 college students. Each student was asked to make a series of free (spontaneous) drawings as well as some drawings in response to certain assigned tasks. The drawings (422 in all) were analyzed and scored according to content as well as preference for certain types of formal expression (size of paper, size of form elements, quality of lines, organization of form, shading, etc.). On the basis of the analysis, a descriptive personality sketch for each student was drawn up. The sketches were then given to a psychologist, a Rorschach expert, and to teachers for matching. The teachers made 116 matching judgments on 41 students, and in 103 instances the teachers recognized the students. The matching with the Rorschach interpretation was correct in 87% of the cases. A detailed account of the procedure used in analyzing and interpreting the drawings is given.—L. Long (City College of New York).

1611. Welford, A. T. An attempt at an experimental approach to the psychology of religion. *Brit. J. Psychol.*, 1946, 36, 55-73.—One hundred eighty-two subjects were given four prayers differing somewhat in language and subject matter and were asked to place them in order of preference. Groups of subjects were found to show significantly different group preferences. Those who did the most churchgoing laid the most stress on the mode of expression of the prayers, upon beauty and dignity of expression as opposed to simplicity and directness, and upon the affective as opposed to the intellectual aspects of the subject matter. Nonchurchgoers showed a preference for simplicity and directness; and so also did those churchgoers who were doing social work with children. The preference for a prayer was increased when it was regarded as familiar or aroused associations.—M. D. Vernon (Cambridge).

1612. Wiese, M. J., & Cole, S. G. A study of children's attitudes and the influence of a commercial motion picture. *J. Psychol.*, 1946, 21, 151-

171.—Approximately 1,500 students in grades 7 through 12 in a number of Western school systems commented on several topics before and after seeing *Tomorrow the World*. Remarks were requested on "the American Way" and "the Nazi way" as regards each of 12 topics. Most also wrote 10 minutes on what to do with Emil, the Nazi boy portrayed in the picture. Responses were analyzed for approximately 1,100 students. Students were well informed concerning tenets of the American way of life, less well concerning the Nazi way of life. Most believed firmly in the ideals of American democracy, but a few believed the ideals were not being carried out. Responses varied with economic and cultural background. The picture apparently "softened somewhat the students' judgment of the severity of the Nazi regime" and "appears to have confirmed the majority of students, particularly those culturally privileged, in an emotional and non-discriminative estimate of the social and economic scene in America."—R. B. Ammons (Syracuse).

1613. Williams, J. J. Patients and prejudice: lay attitudes toward women physicians. *Amer. J. Sociol.*, 1946, 51, 283-287.—A minority group within a profession is a group which, although technically qualified, deviates from an expected pattern of auxiliary characteristics, such as age, sex, and religious or ethnic affiliation. The situation in which a layman selects a professional is distinguished from that in which he exercises no choice but retains the right to protest. The relative status of various minority-group physicians in these two situations is reported on the basis of data obtained from a sample of urban middle-class women. Attitudes toward women physicians are compared with attitudes toward physicians of religious and ethnic minorities.—D. L. Glick (Arlington, Va.).

[See also abstracts 1453, 1507, 1511, 1558, 1562, 1565, 1630, 1689, 1720, 1721, 1725.]

CRIME AND DELINQUENCY

1614. Bogen, D. Trends in juvenile delinquency. *Police J., N. Y.*, 1945, 31, No. 2, 3-4; 8.—Juvenile court statistics show that only a very small minority of the child population is involved in delinquency. Delinquency rates had been increasing rapidly before the war, and some types of delinquency have continued to increase but others have decreased. Delinquency may be expected to continue at a high rate, as it is associated with prosperity and declines during depressions.—G. S. Speer (Illinois Inst. Tech.).

1615. Brady, J. P., & Hildreth, H. M. Characteristics of a disciplinary group in a naval hospital. *Nav. med. Bull., Wash.*, 1945, 45, 500-505.—An analysis of 233 disciplinary cases and of a comparable control group among the patients of a naval hospital revealed no differences between the groups in many of the factors known to characterize delinquents in civil life, such as age, emotional instability, educational background, early neurotic traits, neuro-

psychiatric symptoms, and pre-service delinquency. The disciplinary group was found, however, to have rated themselves as more quick-tempered and as having had more trouble with authorities in civilian jobs and schools. In comparing service experience of the two groups, it was found that the delinquent group had a higher proportion of men who had been in combat and that they rated themselves as having improved in personality during their military service more often than the control group did, while there was no difference between the groups in length of service or length of duty overseas.—R. O. Rouse (U. S. Army Air Forces).

1616. Cain, A. The police and psychology. *Police J., Lond.*, 1945, 18, 289-298.—The police in England face five major problems in the postwar period: selection and training of 15,000 recruits; a tremendous traffic problem; an increase in crime, with many cases of violence; juvenile delinquency; and the selection and training of senior officers. Each of these problems involves numerous psychological principles and problems and can be more easily handled with the co-operation and research of trained psychologists. In addition, a police psychiatric service is suggested.—G. S. Speer (Illinois Inst. Tech.).

1617. Gibbs, F. A., Bagchi, B. K., & Bloomberg, W. Electroencephalographic study of criminals. *Amer. J. Psychiat.*, 1945, 102, 294-298.—Findings are presented of a comparative study of the EEG records of 452 criminals and 1,432 control subjects. It is seen that, when age factors and errors of sampling are controlled, there are no significant differences found in the EEG recordings. Furthermore no significant correlations are found between the EEG and the type of criminal behavior.—R. D. Weitz (Jersey City, N. J.).

1618. Haydon, E. M. Re-education and delinquency. *J. soc. Issues*, 1945, 1, No. 3, 23-32.—Since delinquency is a social pattern associated with certain areas of poverty, reformation implies alteration of these patterns for youth in the afflicted areas. The program of the Chicago Areas Project in forming boys clubs with direction from the natural community leaders is described and evaluated as a successful technique in reducing delinquency.—L. M. Hanks, Jr. (Bennington).

1619. Lindner, R. M. Stone walls and men. New York: Odyssey Press, 1946. Pp. x + 496. \$4.00.—The author discusses crime as a psychosocial phenomenon emphasizing its motivation and its relation to psychopathology, alcoholism, prevailing economy, culture, and ideological conflicts. Crime "is an extreme form of maladjustment. . . . The criminal acts out his difficulties, whereas the neurotic suffers them out." Interpretations are often cast in a psychoanalytic framework. The book continues with a critical evaluation of legal controls, penal methods, parole, and probation. "The time is rapidly approaching when the jury trial will be as extinct as the dodo, when it will be looked upon with the contempt with which we now regard . . . the

medieval dungeon. . . . The law has become separated from its function, has become a ritualistic mumbo jumbo. . . . The individuality of the people who come before it, their problems, their needs, are lost, sacrificed to a devious and punctilious routine. . . . Prisons have failed. They have . . . a delusion that they can . . . reduce crime by keeping people in air conditioned zoos furnished with distracting toys."—F. K. Berrien (Colgate).

1620. Lippman, H. S. Treatment of juvenile delinquents. *Soc. Serv. Rev.*, 1945, 19, 373-380.—Children are delinquent for a wide variety of reasons, and the treatment should be suited to the basic problem. The psychiatrist is most needed for direct, and frequently intensive, treatment of the delinquents with deep personal conflicts. Other methods, such as group therapy or shop work, are discussed in relation to other patterns of delinquency.—G. S. Speer (Illinois Inst. Tech.).

1621. Mason, I. An index of the severity of criminalism or psychopathy. *Bull. U. S. Army med. Dep.*, 1944, No. 75, 110-114.—Many of the psychopaths who have been rejected at induction stations because of criminal records would do well in the army if it were possible to place them promptly in a combat zone. An index of the degree of criminalism or psychopathy would serve to reduce the number of severe psychopaths accepted and increase the number of mild psychopaths accepted. 636 criminals were divided into three groups of criminality on the basis of convictions and into three degrees of neuroticism on the basis of number of symptoms. The more severe the criminalism, the less was the number of neurotic complaints. The ratio of degree of criminalism to degree of neuroticism provides an index of psychopathology. Those who have more neurotic complaints and, consequently, more guilt feelings have a lower index and are a better risk for the army.—R. O. Rouse (U. S. Army Air Forces).

1622. Pescor, M. J. The Woodworth Personal Data Sheet as applied to delinquents. *J. clin. Psychopath. Psychother.*, 1945, 7, 383-393.—When the Woodworth Personal Data Sheet was given on admission to 800 inmates of the United States Northeastern Penitentiary, 12.3% were found to have a psychoneurotic tendency and 4.9% were found to be definitely psychoneurotic. A group of 100 emotionally unstable individuals showed more minor physical ailments, more alcoholism, more frequently disrupted home life, smaller physical size, and less ability to adjust to institutional life. Subsequent observation showed the Woodworth Personal Data Sheet was correct in about 85% of the cases, with an odd-even coefficient of reliability of .81. C. E. Henry (U. S. Naval Reserve).

1623. Radzinowicz, L., Turner, J. W. C., & others. The modern approach to criminal law. *Engl. Stud. crim. Sci.*, 1945, 4. Pp. ix + 511.

1624. von Hentig, H. The first generation and a half; notes on the delinquency of the native white of mixed parentage. *Amer. sociol. Rev.*, 1945, 10, 792-798.—Some data are presented concerning com-

parative delinquency rates for native whites of mixed parentage, but the inadequacy of the data and the complexity of the question of mixed parentage are raised as confusing problems. "In conclusion, it appears that the selective structure of the group, statistical shortcomings and probably specific age conditions account for the lighter delinquency, suicide, and insanity rate of the white of mixed parentage. The weight of other contributory factors remains to be studied."—C. N. Cofer (U. S. Naval Reserve).

INDUSTRIAL AND PERSONNEL PROBLEMS

1625. Boechat, J. Examen des recrues et épreuves psychologiques. (Examination of recruits and psychological tests.) *Praxis*, 1944, 33, 312.—After two years of use with the French army, psychological tests are adjudged as excellent means for the selection of soldiers according to aptitudes. Test results obtained will be of value for sociological research. For example, the tests of 1942 and 1943 administered to 90,000 men contained some spelling tasks. Some of the sociological questions which can be answered on the basis of these results are: What relation exists between spelling-capacity and density of population of the place of domicile, between spelling and reading, between spelling and writing of letters or type of professional work? A sociological finding already obtained shows that more intelligent individuals are the first to abandon the country for the city and that herein lies a danger of leaving the country-side peopled with the mentally deficient.—F. C. Sumner (Howard).

1626. Bornemann, E. Aufgaben der Arbeitspsychologie der Gegenwart. Teil II: Psychologische Wege der Leistungssteigerung. (Problems of present-day industrial psychology. Part II: Psychological ways of increasing production.) *Stahl u. Eisen*, 1944, 64, 249-256.—To reduce the feeling of monotony, the most important factor in industrial fatigue, the worker must be well motivated; ways to this end are rapid work with frequent rest pauses, conveyor jobs for certain groups of workers, and the introduction of subgoals such as bundling of a given number of finished products. Co-operation can be fostered by occasional talks, by a properly planned suggestion system, and by explaining to the worker the larger context of his function in the industry. Just wages and proper leadership are also important. Among leadership rules listed are: clear instructions, frequent praise, human interest, and explanation of plant shortcomings. The main function of the psychologist regarding industrial morale is to smooth out frictions; his work can be compared to that of a physician. Engineers as well as supervisors should receive some psychological training. (See also 18: 2909.)—H. L. Ansbacher (Brooklyn).

1627. Bornemann, E. Bedeutung des Vorschlagswesens für die Eisenhüttenbetriebe. (Significance of the suggestion system for the steel industry.) *Stahl u. Eisen*, 1944, 64, 707-716.—Basic for a

successful suggestion system is that the suggestions be evaluated promptly, that the rewards be adequate, and that they be presented in an attractive way. The administration of a suggestion system is described, and six forms used in one industry are reproduced. Usable suggestions, which are indicated as 68% of those submitted, not only improve production directly but the system as such is a valuable tool of industrial leadership: it increases job satisfaction, encourages a positive approach on part of the workers towards difficulties, is a demonstration of the spirit of co-operation, facilitates the selection of supervisors, and encourages creativity among workers in general. Fourteen examples of suggestions from steel workers are given.—*H. L. Ansbacher* (Brooklyn).

1628. Bradford, L. P. Resistance to re-education in government administration. *J. soc. Issues*, 1945, 1, No. 3, 38-45.—Administrators look askance at programs to improve administrative techniques largely for fear of uncovering shortcomings to themselves and outsiders, which revelation may mean loss of status. Reassurance on these points, demonstration of actual attitudes through attitude scales, and concrete examples of gain through the re-education have overcome these resistances. Courses with discussion and psychodrama given to groups of administrators at a common level of authority, followed by group meetings to discuss common problems, have resulted in smoother relations between supervisors and employees.—*L. M. Hanks, Jr.* (Bennington).

1629. Cohen, E., & Witmer, H. Adjustment of former child guidance patients to military service. *Smith Coll. Stud. soc. Work*, 1945, 16, 104-122.—Of 100 boys who had been treated by the Worcester Child Guidance Clinic between 1929 and 1936 and were subjects in a follow-up study between 1938 and 1942, the proportion in military service (55%) was comparable to that of the same age group in the general population. Families of 42 of the men in service were interviewed in the spring of 1945 to determine the quality of adjustment to the service made by the previous patients. About as many made satisfactory as unsatisfactory adjustments. Symptoms at time of treatment were of no value in predicting adjustment to service years later. Patients who responded well to treatment and who were well adjusted at the time of the follow-up study tended to adjust better to the service than those who did not respond and/or were poorly adjusted at the time of the follow-up.—*M. R. Jones* (U. S. Naval Reserve).

1630. Collins, O. Ethnic behavior in industry: sponsorship and rejection in a New England factory. *Amer. J. Sociol.*, 1946, 51, 293-298.—Since in industry the job is the symbol of status, the pattern of sponsorship and rejection is related to the ethnic social stratification of the community. Analysis of behavior in a New England factory reveals an informal ethnic system of job occupancy and of expectation in promotion. When management pro-

notes in accordance with this system, its selections are accepted by labor, but when promotions not in accordance with the established patterns are proposed, labor adopts informal and effective action to reject them.—*D. L. Glick* (Arlington, Va.).

1631. Colman, W. G. Evaluating military experience for civilian employment. *Publ. Person. Rev.*, 1946, 7, 8-14.—A policy regarding entrance requirements for public service positions that is desirable from the viewpoint of veterans' preference qualifications would be to apply minimum education and experience requirements to all applicants but to give veterans liberal credit for qualifying experience or training acquired while in military service. This policy would emphasize the value of aptitude testing and of skillful evaluation of military experience. A special employment blank covering complete military history and required submission of service separation forms would be very valuable. A rating technique must be devised for translating military job titles, aptitudes, and related skills into their civilian counterparts. A table of military-civilian job relationships illustrating such a technique is included, and problems of evaluating quantity and quality of military experiences are discussed briefly.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

1632. Deemer, W. L., Jr. E.R.C. stenographic aptitude test. Chicago: Science Research Associates, 1944. 25 copies, \$3.50; specimen set, 35c.

1633. Feinberg, R. Illumination and vision conservation in industry. *Illum. Engng. N. Y.*, 1945, 40, 302-306.—Practical problems of lighting in industry require the co-operation of the illuminating engineer and eye specialist for their solution.—*A. Chapanis* (U. S. Army Air Forces).

1634. File, Q. W. Are management's views of supervision faulty? *Personnel J.*, 1946, 24, 242-250.—A test of general supervisory ability, "How Supervise?" has been devised for the selection of supervisors in any industry (see 20: 282). Experts in the field of industrial supervision were used in the selecting and scoring of items for this test. The mental-hygiene aspects of industrial supervision were found to be of primary importance, although supervisors selected by management were frequently unaware of their own importance. Management disagreed with industrial experts on several points including methods of handling dissatisfied workers and their complaints.—*M. B. Mitchell* (Klein Institute).

1635. Fishenden, R. B. Types, paper and printing in relation to eyestrain. *Brit. J. Ophthalm.*, 1946, 30, 20-26.—Various factors, such as design of types, size of type, leading, paper color, quality of paper and quality of ink, are discussed. Special stress is placed upon providing typography favorable to reader comfort.—*M. A. Tinker* (Minnesota).

1636. Flemming, E. G., & Flemming, C. W. A qualitative approach to the problem of improving selection of salesmen by psychological tests. *J. Psychol.*, 1946, 21, 127-150.—Qualitative analyses

were made of the scores of 583 men from 12 companies on 34 subtests of a battery of 6 paper and pencil tests: Bernreuter Personality Inventory, Moss Social Intelligence Test, Washburne Social Adjustment Inventory, Otis Self-Administering Higher Examination of Mental Ability, Canfield Test of Sales Knowledge, and Strong Vocational Interest Blank. Analysis was made of the meaning of each score in comparison with various norms, and of patterns of scores. "Data presented for a combined group of 348 salesmen employed in six sales organizations showed that 80.6 per cent of the salesmen judged by the test analysts to be satisfactory were estimated as satisfactory by company executives. . . . Executives for five companies involving 218 salesmen estimated that 80 to 89 per cent of the analyses were accurate in their descriptions and evaluations of the men concerned."—*R. B. Ammons* (Syracuse).

1637. **Hardtke, E. F.** *Aptitude testing for metal-working occupations.* *Psychol. Bull.*, 1945, 42, 679-694.—This review calls attention to a fertile field for aptitude studies and provides a survey of the pertinent studies up to 1943. Occupations studied are watchmaking, jewelry, machine shop, sheet metal, and foundry. A bibliography of 109 titles is included.—*S. Ross* (U. S. Naval Reserve).

1638. **Havin, H.** *En psykoteknisk undersøkelse av sykepleierske-elever.* (A psychotechnical examination of nurses.) 2 vols. Oslo: J. Chr. Gundersens Boktr., [1943]. Pp. 32; 35. 1.68 Kr, each.

1639. **Israeli, N.** *Studies in occupational analysis: I. Levels of difficulty, responsibility, and importance in technical judgment and design operations in ordnance and mechanical engineering.* *J. Psychol.*, 1946, 21, 197-200.—A study was made to determine those bases on which the job evaluation of positions of ordnance and mechanical engineers would rest under a grading scale established by Federal statute. The basic continua were assumed to be technical judgment and design operations. Descriptions of qualifications for 8 position levels are given for the following areas: drawings, specifications, research, analysis, advisory, and administrative work. Difficulties were encountered in the evaluation in connection with (1) a considerable descriptive overlap from grade level to grade level, (2) failure to check reliability, validity, or completeness of the original empirically obtained position descriptions, (3) unequal differences between grades, and (4) failure to quantify factors.—*R. B. Ammons* (Syracuse).

1640. **Jurgensen, C. E.** *Getting personal.* *Nat. Safety News*, 1945, 52, No. 2, 21; 80-86; 88-90.—Accidents are caused by various physical, physiological, and psychological conditions. The known facts of each of these causes are discussed briefly, with emphasis on the psychological factors and the need for studying the whole personality.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

1641. **Jurgensen, C. E.** *Can we improve mass education?* *Nat. Safety News*, 1945, 52, No. 4, 82; 134-135.—"To secure maximum results from safety

training, individual work is highly important. . . . Nevertheless, there are some types of group safety training which should supplement the individual training." The psychology of safety posters and safety committees is discussed.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

1642. **Jurgensen, C. E.** *How much do we know about accident causes?* *Nat. Safety News*, 1945, 52, No. 5, 26-27; 80; 82; 84.—Analysis of accidents among 946 employees of one mill revealed a ratio of 1:29:300 for major injuries, minor injuries, and no-injury accidents. Employees who had disabling injuries also averaged 6.5 minor injuries in the year, while those who had no disabling injuries averaged 3.1 minor injuries. Employees who had one or more doctor's care injuries averaged 5.5 minor injuries and those with no doctor's care injuries averaged 3.0 minor injuries. Evidence indicated the fallacy of the chance distribution theory of accidents and favored the theory of unequal liability: 49% of the employees accounted for 94% of the accidents, 29% of the employees for 80% of the accidents, 11% of the employees for 50% of the accidents, and 3% of the employees for 24% of the accidents.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

1643. **Kraines, S. H.** *Prophylactic psychiatry in the army.* *Bull. U. S. Army med. Dep.*, 1944, No. 75, 77-81.—A prophylactic procedure including psychiatric education of troop officers and the use of trained noncommissioned company advisers is described. A marked decrease in the number of absences without leave is reported for the period during which the program functioned.—*R. O. Rouse* (U. S. Army Air Forces).

1644. **Kuhn, F. D.** *Bibliography on the rehabilitation of servicemen.* *Occup. Ther.*, 1945, 24, 99-108.—This is a list of 229 recent references, listed in 14 categories. Among other topics are psychoneuroses, disability evaluation and job analysis, vocational rehabilitation, and psychological adjustment.—*G. S. Speer* (Illinois Inst. Tech.).

1645. **Lawshe, C. H., Jr., & Mills, W. B.** *Further studies in the development of test batteries for identifying potentially successful naval electrical trainees.* *J. Psychol.*, 1946, 21, 97-105.—During their boot training, 702 naval electrical trainees were given 6 tests: general classification, reading, arithmetic, mechanical aptitude, mechanical knowledge, and electrical knowledge. At the start of their 15½-week special training program, they were given 3 additional tests: practical electrical information, simple arithmetical and measurement ability, and mental alertness. Two batteries of 3 tests each were isolated, each giving *R*'s of over .60 with the criterion of percentage grades in the school. A battery containing one of the additional tests gave only slightly better prediction than one composed of 3 of the original tests. It was concluded that for practical purposes the original 6-test battery gave satisfactory results alone.—*R. B. Ammons* (Syracuse).

1646. **Lewis, A., Capel, E. H., Bunbury, D. E., & Russell, F.** *Psychiatric advice in industry.* *Brit. J.*

industr. Med., 1945, 2, 41-47.—This is a panel discussion including the following topics: the phases in the worker's life when psychiatric advice is particularly needed; the psychiatric functions of the industrial physician and the teaching of industrial psychiatry; methods of examination; working conditions conducive to emotional strain; types of conditions seen; qualifications of supervisors; incentive systems as leading to fatigue and anxiety; accident neuroses; relief in monotonous jobs; job analysis; and group atmosphere in the shop.—*M. E. Morse* (Baltimore, Md.).

1647. Logan, H. L. **Lighting and safety.** *Amer. J. Optom.*, 1945, 22, 563-568.—Improper illumination has been judged responsible for only 0.4% of industrial accidents. Actually, poor visibility is responsible for a much greater percentage. Illumination which is adequate for an observer who is adapted to that intensity, who is moving slowly, and who is not preoccupied with other activities, may be quite inadequate to make obstacles appear in sufficient contrast to their backgrounds to initiate protective responses when people are moving about in accordance with the demands of their work. Also effects of brightness differences between objects and surrounds, reduction of intensity through low reflectance, and concealing effects of glare must be taken into account. Data on accident reduction after scientific lighting at traffic intersections support these conclusions, for the eyes are operating under the same physiological laws in all situations.—*M. R. Stoll* (Amer. Opt. Co.).

1648. Lovelace, W. B. **Seven points to help you with your testing program.** *Industr. Relations*, 1945, 3, No. 7, 22-23.—Warnings with respect to the qualifications of a good testing program are: (1) there is no "easy" way to test employees, (2) interpretation is the most important part of any testing program, (3) a recognized industrial psychologist must be hired or consulted in setting up a testing program, (4) a good psychologist will analyze the problem and then select or devise the tests, (5) tests must be followed up and revised, (6) tests alone will not solve placement problems, and (7) testing is a continuous process.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

1649. Lueck, I. B. **Vision in industry.** *Amer. J. Ophthalm.*, 1946, 29, 63-72.—Studies of visual efficiency based on measures of individual differences that are most useful in correlating visual skills with industrial performance are summarized and presented in graphic form. The value of careful visual tests in fitting the individual for his most efficient service to industry is emphasized.—*D. J. Shaad* (Kansas City, Kans.).

1650. Marrow, A. J., & French, J. R. P., Jr. **Changing a stereotype in industry.** *J. soc. Issues*, 1945, 1, No. 3, 33-37.—Needing additional workers, a textile plant advocated hiring women over 30 years of age, but opposition arose on the part of both management and workers, based mainly on the stereotype of loss of time and slow learning. An

investigation enlisting the aid of management and a series of discussions by the workers reduced sufficiently the opposition, so that hiring women of this age was possible.—*L. M. Hanks, Jr.* (Bennington).

1651. Miller, D. R. **Survey of mechanical insight.** Los Angeles: California Test Bureau, 1945. 25 copies, \$2.50; specimen set, 11c.

1652. Miller, D. R. **Survey of object visualization.** Los Angeles: California Test Bureau, 1945. 25 copies, \$1.50; specimen set, 7c.

1653. Minton, J. **Visual standards in industry.** *Brit. J. industr. Med.*, 1945, 2, 111-112.—In Britain there is as yet no unified attempt to deal with the vision of employees, although individual firms do so. At present a compulsory country-wide visual examination of employees with classification, retraining, and suitable placement is impracticable, although the problem must be tackled eventually. Minton lays down some visual considerations to guide the industrial physician in selection of employees for various jobs. He divides industrial occupations into four general groups ranging from those requiring exceptionally good vision to those suitable for the blind.—*M. E. Morse* (Baltimore, Md.).

1654. Mittelman, B., Weider, A., Vonachen, H. A., Kronenberg, M., Weider, N., Brodman, K., & Wolff, H. G. **Detection and management of personality and psychosomatic disorders among industrial personnel.** *Psychosom. Med.*, 1945, 7, 359-367.—Six hundred seventy-nine employees, including 508 veterans, in a large industrial organization were given psychiatric interviews and pencil-and-paper tests to insure proper placement and to maintain mental health. The procedures described by the authors are practicable in the placement of personnel, with a minimum of likelihood of personality disturbances elicited on the job, where the fullest use of the worker's capabilities could be realized. They are also useful in situations where counsel and therapy are available when conflicts arise, but their adoption is questionable in determining the employability of applicants for work. "Of 508 veterans applying for employment, 15% were found to have moderately severe or severe personality disturbances."—*P. S. de Q. Cabot* (United Drug, Inc.).

1655. **National Roster of Scientific and Specialized Personnel. The profession of personnel administration.** *Personnel J.*, 1946, 24, 265-269.—The duties of professional personnel workers are described briefly. They include labor relations, recruitment, selection and placement of employees, training of new employees, job classifications and pay plans, exit interviewing, health and safety of employees, and counseling. Personnel workers may specialize in research, editing and writing, consulting, teaching, administration, or statistics. They are employed in industry, government, schools, and colleges.—*M. B. Mitchell* (Klein Institute).

1656. Ross, W. D., Ferguson, G. A., & Chalke, F. C. R. **The Group Rorschach Test in officer**

selection. *Bull. Canad. psychol. Ass.*, 1945, 5, 84-86.—The Rorschach Test was administered by the group method to 531 officer candidates undergoing appraisal for selection. When the test results were compared to the decision of the Selection Board, it became apparent that the Group Rorschach is "of very limited use as an aid in Officer Selection procedure in the Canadian Army." It is suggested that the reason for this is the high degree of screening to which the candidates have already been exposed during their service.—*F. W. Finger* (Virginia).

1657. [Slocombe, C. S.] Appraisal of Mr. File's study. *Personnel J.*, 1946, 24, 251-254.—File showed that management does not know its supervisors (see 20: 1634). Objective records should, therefore, be used instead of ratings to determine good supervisors. The general supervisory ability, that File attempted to measure, was not defined by him; it may merely be another term for general intelligence. The supervisors were not given a general intelligence test to check this possibility.—*M. B. Mitchell* (Klein Institute).

1658. Staff, Personnel Research Section, Classification and Replacement Branch, The Adjutant General's Office. The Army General Classification Test. *Psychol. Bull.*, 1945, 42, 760-768.—This article describes the development, standardization, preparation of alternate forms, reliability, relation to other variables, and validity of the AGCT.—*S. Ross* (U. S. Naval Reserve).

1659. Staff, Psychological Research Project (Navigator), Ellington Field, Texas. History, organization and research activities, Psychological Research Project (Navigator), Army Air Forces. *Psychol. Bull.*, 1945, 42, 751-759.—The ninth in a series of reports describing the Aviation Psychology Program of the Army Air Forces, this article covers the work of the application of psychological and statistical techniques to research in navigation. It deals with the following points: (1) objective measures of skill in navigation; (2) research in training; (3) research on the selection of instructors; and (4) work in the Navigation Schools. A list of personnel attached to this project is given.—*S. Ross* (U. S. Naval Reserve).

1660. Staff, Psychological Research Project (Pilot). Psychological research on pilot training in the AAF. *Amer. Psychologist*, 1946, 1, 7-16.—This article, the tenth in a series describing the various phases of the Army Aviation Psychology Program, outlines the research on pilot selection and training. "Most of the research has been conducted in two main areas: objective measures of flying skill, and instructor selection. Other research includes a job analysis of the pilot's task, the development of printed tests of flying information, studies in fixed gunnery, and training experiments." The outline is supplemented with examples of research results.—*N. R. Bartlett* (Johns Hopkins).

1661. Staff, Test and Research Section, Standards and Curriculum Division, Training, Bureau of Naval

Personnel. Psychological test construction and research in the Bureau of Naval Personnel: measurement of achievement in Navy training. *Psychol. Bull.*, 1945, 42, 769-778.—The report describes some problems in the measurement of achievement in naval training programs, the programs for which materials have been developed, the types of tests developed, and the procedures followed in test construction. Another section is included which deals with the outcomes of the Achievement Examination Program.—*S. Ross* (U. S. Naval Reserve).

1662. Stewart, D. A., & Bolanovich, D. J. Personnel work on the grill. *Personnel J.*, 1946, 24, 282-288.—A personnel department must know the personnel problems involved, devise and administer procedures for handling the problems, and evaluate the effects of the procedures used. Arithmetic and cost accounting alone cannot be used in evaluating personnel procedures. Statistical methods must be employed because the differences in results for various procedures may be due merely to chance.—*M. B. Mitchell* (Klein Institute).

1663. Tiffin, J. Vision and industrial production. *Illum. Engng.*, N. Y., 1945, 40, 239-257.—Research on several types of industrial jobs reveals consistent differences in visual skills between workers with good and poor production records. The combination of visual skills required for maximum efficiency differs for various jobs. Some jobs, for example, require good near vision while others may require good distance vision or both. Visual performance profiles combining data from 12 visual tests are used to show the visual skills and critical scores which characterize the better operators in a number of occupations. Proper consideration of the visual problems of industry benefits both management and the employee. Two pages of discussion.—*A. Chapanis* (U. S. Army Air Forces).

1664. Toops, H. A. Philosophy and practice of personnel selection. *Educ. psychol. Measmt.*, 1945, 5, 95-124.—The theory and methods of personnel selection are discussed. The methods include: (1) the summation-of-traits-scores method, (2) the successive hurdles method, (3) the precise profile method, (4) the minimum divergence from the desired profile method, and (5) the predominant or outstanding merit method.—*S. Wapner* (Rochester).

1665. Vernon, H. M. Prevention of accidents. *Brit. J. industr. Med.*, 1945, 2, 1-9.—This article contains the analyzed statistics on reportable factory accidents during the war years. The rate for men increased 49%; for women, 400%. Among the topics considered are accident proneness; the relation of hours of work, fatigue and high temperature to the accident rate; and the psychology of accident prevention. Men suffered little from overfatigue by lengthening the workday from 10 to 12 hours, whereas women were greatly affected. High temperatures are much more fatiguing to older than to younger men. Vernon stresses particularly habit formation for safety and the great reduction of accidents effected by preliminary training and

supervision. Psychological tests before assignment and safety campaigns have made little headway in Britain.—*M. E. Morse* (Baltimore, Md.).

1666. Walter, M. M. Vocational rehabilitation for the deaf and the hard of hearing. *Arch. Otolaryng.*, Chicago, 1945, 42, 157-163.—The vocational rehabilitation service instituted by the National Civilian Vocational Rehabilitation Law is described as it is given to the aurally handicapped. The aspects considered include: the determination of the mental, physical, and emotional characteristics of the applicant, his experience, and the environmental factors concerned with his problem; the determination of a suitable job objective; and the preparation of the handicapped person for employment involving not only medical and surgical treatment but also social and vocational training.—*A. C. Hoffman* (Tufts).

[See also abstracts 1385, 1389, 1409, 1413, 1480, 1481, 1533, 1536, 1578, 1688, 1709, 1710.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

1667. Alper, T. G., Mallory, E. B., & Mitchell, M. Wellesley spelling scale, forms I and II. Los Angeles: California Test Bureau, 1944. 25 copies (either form), 75c; specimen set, 4c.

1668. [Anon.] New tests of 1944-1945. *Educ. psychol. Measmt.*, 1945, 5, 295-300.—*S. Wapner* (Rochester).

1669. [Anon.] What changes in education would bring better mental health? *Understanding the Child*, 1946, 15, 11-14.—*S. B. Sarason* (Southbury Training School, Conn.).

1670. Bender, J. F. Retention of experience by school children. *Proc. Okla. Acad. Sci.*, 1945, 25, 59-61.—A study was made of the loss or gain during summer vacation in the following subject matter studied the previous school year: arithmetic reasoning, word knowledge, composition, reading, arithmetic fundamentals, and spelling. In only the latter two was the average loss greater than the combined average gain and no gain. There was no correlation between intelligence test scores and losses or gains.—*M. O. Wilson* (Oklahoma).

1671. Bibby, C. Sex education: aims, possibilities and plans. *Nature, Lond.*, 1945, 156, 412-414; 438-441.—*A. C. Hoffman* (Tufts).

1672. Bowman, H. Marriage preparation must be modernized. *Ment. Hyg.*, N. Y., 1946, 30, 74-82.—In no other socially significant area is there such lack of adequate and serious instruction as in the area of marriage relationships. This is not only socially shortsighted but also contrary to the students' felt needs, for college girls almost universally feel a need for such instruction.—*W. L. Wilkins* (U. S. Naval Reserve).

1673. Chang, S. T. Measuring composition merits in terms of shortcomings. *Chin. J. educ. Psychol. Engl. Abstr.*, 1945, 1, No. 4, 5-8.

1674. Clark, W. W., & Thorpe, L. P. Vocational guidance for junior and senior high school pupils. *Educ. Bull., Calif. Test Bur.*, 1945, No. 15. Pp. 14.

1675. Dokk, T. Psykologi og kristen pedagogikk. (Psychology and Christian pedagogics.) *Norsk ped. Tidsskr.*, 1945, 29, 42-44.

1676. Doll, E. A. Psychological moments in reading. *Bull. St. Teach. Coll., Glassboro, N. J.*, 1945, No. 15. Pp. 4.—See 20: 1252.

1677. Durrell, D. D., & Sullivan, H. B. Reading achievement test—intermediate test: forms A and B. Yonkers-on-Hudson, N. Y.: World Book Co., 1944. 25 copies (either form), \$1.55; specimen set, 55c.

1678. Fluge, F. Det psykologiske evnekomplekset. II. (The psychological ability-complex. II.) *Norsk ped. Tidsskr.*, 1944, 28, 14-18.

1679. Gray, W. S. [Ed.] The appraisal of current practices in reading. *Suppl. educ. Monogr.*, 1945, No. 61. Pp. vii + 255.—The aim of this report is to stimulate critical thinking, to set up criteria of appraisal, and to point out needed changes in reading programs and in the types of guidance provided. To this end, more than 30 contributors have presented articles on such aspects of the subject as adjustment to individual needs, provision for poor and "disabled" readers, the interpretation of what is read, the nonoral method, the development of accuracy and independence in word perception, and current issues in the teaching of literature. Lists of books for library and class use, a discussion of progress in making text books, and an index complete the monograph.—*G. E. Bird* (R. I. College of Education).

1680. Hall, W. E., & Robinson, F. P. An analytical approach to the study of reading skills. *J. educ. Psychol.*, 1945, 36, 429-442.—Tests designed to discover students' ability to read graphs, charts, and maps, as well as prose, were administered to a college English class. Complete data, including 25 scores on these and other instruments, were obtained for 100 subjects. Factorial analysis of results brought to light 6 factors: attitude of comprehension accuracy, rate of inductive reasoning, verbal or word meaning, rate for unrelated facts, chart reading skill, and an unidentifiable factor. There are different reading skills for prose and for non-prose materials. Each of these skills is itself a composite of different subskills, abilities, and attitudes.—*E. B. Mallory* (Wellesley).

1681. Harmon, D. B. Lighting and child development. *Illum. Engng.*, N. Y., 1945, 40, 199-233.—The Texas Inter-Professional Commission on Child Development has launched a long-range experimental program to determine whether practical methodologies can be evolved to promote optimum whole-child development and thereby reduce the enormous incidence of developmental defects and chronic health problems characteristic of large

segments of the adult population. Analysis of a large sample of data reveals that physiological, nutritional, educational, psychological, and social defects in children tend to be positively associated. This fact emphasizes the necessity of controlling simultaneously the systemic growth, intersystemic integration (functional and organic), environmental demands (natural and social), and experiences of the child to obtain maximal development. The results of an experiment involving 396 children in five grades of one school are cited to illustrate how improvement of the environment may be reflected in several aspects of the child's health. Six months after the lighting and seating arrangements were altered to obtain maximum ease of seeing, visual defects, nutritional problems, and ear, nose and throat difficulties were significantly decreased. During the same period, the children in the experimental school showed a mean increase in educational age of 10.2 months, whereas the mean educational growth in a control school was only 6.8 months. Five pages of discussion.—*A. Chapanis* (U. S. Army Air Forces).

1682. *Havin, H.* Psykoteknikk og studiebegrensning. (Psychotechnics and limitation of the recruiting to university students.) *Norsk ped. Tidsskr.*, 1944, 28, 73-75.

1683. *Ju, Y. Y., & Ming, T. S.* Silent versus oral reading of Chinese in elementary schools. *Chin. J. educ. Psychol. Engl. Abstr.*, 1945, 1, No. 4, 5.—Abstract.

1684. *Kaback, G. R.* The vocational guidance process and the Rorschach method. *Occupations*, 1946, 24, 203-207.—Rorschach patterns do not indicate common interests among either a group of pharmacy students or a group of accounting students. The patterns do not furnish information which would enable a counselor to advise students to enter one or the other of these fields.—*G. S. Speer* (Illinois Inst. Tech.).

1685. *Lee, E. A., & Thorpe, L. P.* Occupational interest inventory—intermediate, form A. Los Angeles: California Test Bureau, 1944. 25 copies, \$1.75; specimen set, 25c.

1686. *Longarzo, L. C.* A vocational guide for women. (Rev. ed.) New York: H. W. Wilson, 1945. Pp. 119. \$2.50.

1687. *Melcer, F. H., & Brown, B. G.* Tachistoscopic training in the first grade. *Optom. Wkly.*, 1945, 36, 1217-1219.—Seventy-five children were given tachistoscopic training twice weekly, and their scores on school achievement and intelligence tests were compared with those of a control group receiving no special training. Average grades on reading tests were higher in the trained than in the untrained group.—*D. J. Shaad* (Kansas City, Kans.).

1688. *Mellenbruch, P. L.* Mellenbruch aptitude test for men and women, forms A and B. Chicago: Science Research Associates, 1944. 25 copies, \$2.50; specimen set, 35c.

1689. *Neugarten, B. L.* Social class and friendship among school children. *Amer. J. Sociol.*, 1946,

51, 305-313.—Friendship status and reputation of school children in a typical middle western community are found to parallel social-class position. Data are presented in terms of the votes cast and the votes received by each social-status group, on each of 5 statements about friends and each of 18 statements about reputation. Age differences are discussed, as well as the implications for education in a democratic society.—*D. L. Glick* (Arlington, Va.).

1690. *Øverås, A.* Lese- og skrivevanskar hjå born. (Difficulties of children in reading and writing.) *Norsk ped. Tidsskr.*, 1943, 27, 169-176.

1691. *Øverås, A.* Pedagogisk psykologi. (Pedagogical psychology.) *Norsk ped. Tidsskr.*, 1944, 28, 232-240.

1692. *Petch, J. A.* A comparison of the orders of merit of H.S.C. candidates offering two modern languages. *Brit. J. educ. Psychol.*, 1945, 15, 133-138.—The results analyzed represent performance in the two modern languages offered by the candidates sitting for the Higher School Certificate Examination. Correlations between rank order in French and Spanish are substantial (.77), while those between French and German are not appreciably smaller (.74). There is considerably less agreement between the orders of merit for the several sections of the examinations, either within the one language or when two different languages are compared. Candidates who repeat the examination do not vary greatly from year to year in their rank order in the subject as a whole.—*R. C. Strassburger* (St. Joseph's College for Women).

1693. *Phillips, G. H., Levinson, H., & Schrammel, H. E.* P-L-S journalism test. Emporia, Kans.: Kansas State Teachers College, 1944. 25 copies, \$1.15; specimen set, 15c.

1694. *Piense, F., & Piense, K.* Matematikkprestasjoner og intelligens i to gymnasklasser. (Intelligence and mathematical achievements of two classes in the secondary school.) *Norsk ped. Tidsskr.*, 1943, 27, 199-211.

1695. *Recktenwald, L. N.* Attitudes toward occupations before and after vocational information. *Occupations*, 1946, 24, 220-223.—The Cleeton Vocational Interest Inventory was administered to 166 boys. The boys were instructed to study information relating to the 3 best-liked and 3 least-liked occupations. The Inventory was administered again after 15 weeks. Those boys who had studied all 6 of the specified occupations significantly increased their liking for the formerly disliked occupations. The boys who had failed to study the occupations did not significantly change their interest patterns. It is concluded that gaining more information about occupations "enables the learner to see disliked but related occupations in a new light to the end that such aversions may be modified."—*G. S. Speer* (Illinois Inst. Tech.).

1696. *Robinson, B. B.* Neurotic and normal discourtesy in the classroom. *Understanding the Child*,

1946, 15, 8-10.—S. B. Sarason (Southbury Training School, Conn.).

1697. Schrammel, H. E., & Otterstrom, R. Schrammel-Otterstrom arithmetic test. Emporia, Kans.: Kansas State Teachers College, 1945. 25 copies, 75c; specimen set, 20c.

1698. Simpson, R. G. A diagnostic list of spelling words for college freshmen. *J. educ. Psychol.*, 1945, 36, 366-373.—A list of diagnostic spelling words was obtained by tabulating the words misspelled by students in written work over a period of years at Carnegie Institute of Technology. Students were given a dictation test and also a test in which the words were presented in outline form, i.e., the major part of each word was printed, but a blank space was left at the spot where an error was likely to occur. A correlation of $.90 \pm .024$ was found between scores on the two forms of test, but the average score was higher for the dictation than for the outline. The author presents an outline-form test of 75 words selected for their frequency of use and diagnostic value.—E. B. Mallory (Wellesley).

1699. Stevens, A. C. Stevens reading readiness test. Yonkers-on-Hudson, N. Y.: World Book Co., 1944. 25 copies, \$1.80; specimen set, 20c.

1700. [Various.] The United States Armed Forces Institute tests of general educational development. Washington, D. C.: American Council on Education, 1945. Cost upon application.

1701. Wall, W. D. The educational interests of a group of young industrial workers. *Brit. J. educ. Psychol.*, 1945, 15, 127-132.—The preferences were surveyed of a group of 135 adolescent students regarding a number of vocational and cultural subjects available in a day continuation school. Marked sex differences appear. Emphasis is placed upon practical activities with vocational significance, while verbal subjects receive scant favor. Among both boys and girls there is little evidence of genuine cultural interest. The number of activities preferred is higher among the girls, who also actively dislike fewer subjects than do the boys. Implications for the curriculum are pointed out.—R. C. Strassburger (St. Joseph's College for Women).

1702. Wallin, J. E. W. Suggestions for applying the kinesthetic method of overcoming reading difficulties. *Train. Sch. Bull.*, 1946, 42, 185-186.—This condensed report "represents the essentials of Dr. Grace M. Fernald's technique, finger tracing of whole words from visualization, accompanied by word pronunciation." The teacher writes the word with crayola on paper in blackboard-size script. The child traces the word with the tip of the finger, pronouncing in natural vocalization each part as he traces it. He repeats the tracing until he can write the word without looking at the copy, and he must always write the word as a unit. The value of this method in developing phrase reading and correcting reversals is briefly discussed.—S. B. Sarason (Southbury Training School, Conn.).

1703. Weber, E. G. Equating high-school intelligence quotients with college aptitude test scores. *J. educ. Psychol.*, 1945, 36, 443-446.—Scores on the American Council Psychological Tests and IQ scores on Otis Quick-Scoring Tests of Mental Ability were available for 1,014 college entrants. From the distributions of these two sets of scores, standard scores were calculated. The author presents a graph showing the relationship of standard score equivalents on one test to standard score equivalents on the other test, suggesting that "by the use of such an aid, counselors and others interested could predict the probable college aptitude score" from the intelligence quotient.—E. B. Mallory (Wellesley).

1704. Wilson, F. M. Procedures in evaluating a guidance program. New York: Bureau of Publications, Teachers College, 1945. Pp. viii + 210. \$2.60.—The author discusses the functions of guidance and considers the factors that contribute significantly to the success or failure of a guidance program. Previous studies that have dealt with the evaluation of such programs are summarized and a program of evaluation, for use in surveying the guidance program of a secondary school system in a large city, is described. The techniques of observation, interview, questionnaire, and rating scale are discussed in relation to their use in a guidance program. A plan of self-evaluation for an individual school is developed.—L. Long (City College of New York).

1705. Woodruff, A. D. The psychology of teaching. New York: Longmans, Green, 1946. Pp. xi + 180. \$1.75.—This introductory text aims to present the gist of educational psychology in smaller and more compact form than has been customary. This condensation is effected in part by using the engineers' device of topical numbering, beginning with 101 and ending with 1604. Experimental and statistical methods and data are not presented, but results, conclusions, and practical recommendations are emphasized throughout. The keynote is optimal growth in accord with individualized value-patterns. The counseling, or mental hygiene orientation, is dominant and centers on techniques for the avoidance of frustration and for the development of the ability to make wise choices. Hence, the greatest possible initiative on the part of the learner is to be stressed as the best means of cultivating motivational health. The treatment is systematic in style but without apparent commitment to any single theoretical position other than the social testing of various contributions in terms of their furtherance of the kind of personality suitable to a democratic society.—G. W. Hartmann (Teachers College, Columbia).

1706. Wright, B. H. Minneapolis school counselors analyze their jobs. *Occupations*, 1946, 24, 214-219.—A job analysis of counselors working in the junior and senior high schools was made. Duties, and the knowledge and skills needed for each, are shown.—G. S. Speer (Illinois Inst. Tech.).

1707. Wrinkle, W. L., Sanders, J., & Kendel, E. H. *Basic skills in arithmetic test: forms A & B*. Chicago: Science Research Associates, 1945. 25 copies, \$2.50; specimen set, \$0.35.—Designed to measure ability in using the computational skills needed in solving the problems of everyday life, this test measures 43 fundamental arithmetical operations involving whole numbers, fractions, decimals, and percentages. A diagnostic record sheet makes it possible to identify individual and class instructional needs. There is no time limit; the average administration time is 35 minutes. Norms are provided for students in grades 6 to 12 inclusive, based on country-wide standardization.—L. H. McCabe (Cambridge, Mass.).

[See also abstracts 1388, 1462, 1572, 1595, 1598, 1605, 1618, 1635, 1661, 1714.]

MENTAL TESTS

1708. Blumenfeld, W., & Sardón, M. A. *Revisión de Lima de la forma "A" del test colectivo de Terman y resultados de su aplicación*. (The Lima revision of Form A of the Terman group test and results of its application.) *Bol. Inst. Psicoped. nac., Lima*, 1945, 4, No. 1, 3-122.—H. D. Spoerl (Jeffersonville, Vt.).

1709. Case, H. W., & Ruch, F. *Survey of space relations ability*. Los Angeles: California Test Bureau, 1944. 25 tests, \$2.00; specimen set, 25c.

1710. Cummings, S. B., Jr., MacPhee, H. M., & Wright, H. F. *A rapid method of estimating the IQ's of subnormal white adults*. *J. Psychol.*, 1946, 21, 81-89.—The Wechsler-Bellevue Comprehension and Arithmetic tests are proposed as a short test for subnormal white adults being screened for naval service. A group of 420 white male recruits of questionable intellectual ability received IQ's with a mean of 73.34, standard deviation of 11.80, and a range of 48 to 98 on the full W-B verbal scale. Using a derived equation, it was possible to predict the full verbal scale IQ from the two tests with an average error of 3.13 points. The scores of the morons tended to be slightly overpredicted, and those of the low normals slightly underpredicted. An empirical study on a new group gave essentially the same results.—R. B. Ammons (Syracuse).

1711. Hofstätter, P. R. *Möglichkeiten und Probleme der psychologischen Diagnose*. (Possibilities and problems of psychological diagnosis.) *Z. Rassenk.*, 1944, 14, 142-171.—In the first six pages the history of testing is reviewed. This is followed by a refutation of two arguments against testing common among German psychologists, namely that test results are unable to do justice to the "whole" person and that the various abilities tested, such as dexterity or intelligence, cannot be delimited sharply. To define traits properly they have to be subjected to factor analysis. This the author illustrates by his own factor analysis of interest in social contacts, where he finds, for

example, virtually zero correlations between such aspects as liking to meet new people and liking to teach children. In the remainder of the article basic principles of rating and testing, such as the halo effect, the importance of the criterion, and the significance of the individual's position in the distribution curve, are discussed. Many of the 54 references are to American titles.—H. L. Ansbacher (Brooklyn).

1712. Rapaport, D., Gill, M., & Schafer, R. *Diagnostic psychological testing; the theory, statistical evaluation, and diagnostic application of a battery of tests*. Vol. II. Chicago: Year Book Publishers, 1946. Pp. xi + 516. \$6.50.—The diagnostic use of the word-association test, the Rorschach test, and the Thematic Apperception Test (TAT) are discussed in this volume, approximately 60% of the book being devoted to a detailed analysis of findings obtained in various clinical groups with the Rorschach test. The word-association test results are analyzed with reference to popular reactions, close reactions, distant reactions, reaction time, responses to traumatic as opposed to nontraumatic stimulus words, and a comparison of responses originally elicited by a stimulus word with responses elicited on a second administration of the test. The TAT is treated largely qualitatively. Trends appearing in the TAT that are of diagnostic importance for several clinical categories are reviewed. In the discussion of the Rorschach test, the scoring and interpretation follow the basic schema proposed by Rorschach, though a number of refinements in scoring are introduced. This test seems to provide the best single diagnostic tool of the battery employed. For ready reference, diagnostic analyses are given in which individual cases are summarized with a notation of the Rorschach signs pointing to the diagnosis finally made for each patient. (See also 20: 929.)—G. A. Kimble (Brown).

1713. Tiegs, E. W., Clark, W. W., & Thorpe, L. P. *The proper use of intelligence tests*. *Educ. Bull., Calif. Test Bur.*, 1945, No. 14. Pp. 7.

CHILDHOOD AND ADOLESCENCE

1714. Andriola, J. *Truancy syndrome*. *Amer. J. Orthopsychiat.*, 1946, 16, 174-176.—R. E. Perl (New York City).

1715. Eames, T. H. *Eye conditions among children of premature, full-term, and hypermature birth*. *Amer. J. Ophthalmol.*, 1946, 29, 57-63.—One hundred fifty-five children born prematurely were compared with 439 children born at full term; a higher frequency of low visual acuity and a poorer median visual acuity through the ninth year were demonstrated in the children born prematurely.—D. J. Shoad (Kansas City, Kans.).

1716. Evans, J. N. *A visual test for infants*. *Amer. J. Ophthalmol.*, 1946, 29, 73-76.—Test objects in the form of small iron filings manipulated against a white background by a small magnet applied to the opposite side of the tray may be used to indicate

whether or not an infant is able to perceive movement of tiny objects.—D. J. Shaad (Kansas City, Kans.).

1717. Forbes, J. K. The distribution of intelligence among elementary school children in Northern Ireland. *Brit. J. educ. Psychol.*, 1945, 15, 139-145.—In terms of performance on the Moray House Intelligence Test, the 640 children in the age group tested (10+ to 12+ years) are below normal (average IQ = 91.4). Causes of substandard performances appear to be lack of language aptitude and paucity of interests, owing to environmental limitations, rather than innate mental inferiority. Achievement in arithmetic and English for a subgroup of 220 pupils is in advance of the intelligence level, with attainment in English about normal and that in arithmetic considerably beyond the apparent intelligence. A 3-week course of organized teaching stressing language skills produces significant improvement on a retest of intelligence.—R. C. Strassburger (St. Joseph's College for Women).

1718. Gottlieb, J. S., Knott, J. R., & Ashby, M. C. Electroencephalographic evaluation of primary behavior disorders in children. *Arch. Neurol. Psychiat.*, Chicago, 1945, 53, 138-143.—An investigation of 67 children with primary behavior disorders, with no apparent signs of organic disease or organic etiological factors, indicated that 49% of the children had abnormal electroencephalograms. Greater proportions of abnormal electroencephalograms were found when the family history revealed either psychosis, maladjusted personality, chronic alcoholism or epilepsy, or a personal history of severe illness or cerebral trauma. Electroencephalographic abnormality appeared to be unrelated to age or sex.—K. S. Wagoner (DePauw).

1719. Howard, R. W. Intellectual and personality traits of a group of triplets. *J. Psychol.*, 1946, 21, 25-36.—"Data on personality development were secured by means of questionnaires and other methods for 229 sets of triplets; psychological tests were given to 18 preschool and 51 school-age triplets. On tests of general ability, language and non-language, both preschool and school-age triplets were inferior to the average single children of their age. On most tests the school-age triplets were nearer the average of single-born children their own age than were preschool triplets. . . . According to the tests of masculinity and femininity the triplets had interests and attitudes normal for their sex." Interpretation should take into consideration the fact that the majority of the triplets were from rural districts and lower socioeconomic levels.—R. B. Ammons (Syracuse).

1720. Keir, G. Some sex differences in attitude towards change of environment among evacuated central school children. *Brit. J. educ. Psychol.*, 1945, 15, 146-150.—Two hundred forty-three London children between the ages of 11 and 14+ were studied about three years after evacuation to either an urban or a rural reception area. Responses to the question "Do you like being evacuated?" revealed no material differences in attitude between the boys

and girls. Both sexes in both areas tended to like the change as time passed, with no group difference indicated. As a group, girls expressed a strong preference for the town over the country, as did the boys placed in the rural area, although boys located in the urban section were divided in their sentiment. Sex differences appeared in the evaluation of evacuation; the girls stressed the unpleasant aspects and the immediate personal relationships and displayed a depth of emotion not evidenced among the boys.—R. C. Strassburger (St. Joseph's College for Women).

1721. Landis, P. H. Adolescence and youth; the process of maturing. New York: McGraw-Hill, 1945. Pp. xiii + 470. \$3.75.—Feeling that adulthood in a complex society is defined in terms of social criteria rather than physical, the author places emphasis on comprehension of the functional social situation in the understanding of the development of adolescents and youth. Three social worlds are recognized: urban, town, and rural. Treatment of development deals with the following: biology, social structure, and personality; attaining moral maturity; transition to marital adulthood; and adolescents in school.—G. S. Speer (Illinois Inst. Tech.).

1722. Leconte-Lorsignol, S. Évolution des troubles de l'intelligence et du caractère à la puberté. Paris: G. Doin & Cie, 1941. Pp. 90.—See 12: 6131.—P. Jampolsky (Sorbonne).

1723. Slavson, S. R. Treatment of withdrawal through group therapy. *Amer. J. Orthopsychiat.*, 1945, 15, 681-689.—The author discusses the different causes of withdrawal or inhibition of spontaneity in children and suggests that group therapy helps an inhibited individual mobilize by activation. The patient overcomes basic fears and anxieties and finds an outlet for expression of reactivated libido. Group therapy supplies him with (1) a friendly and releasing environment, (2) suitable materials, (3) children or adults to whom he can relate or imitate, (4) supportive relations with comrades and the therapist, (5) ego strengthening, and (6) derivative or direct insight.—R. E. Perl (New York City).

1724. Ssakykina, N. P. [The role of observation in the evolution of children's drawings.] *Doshkolnoye Vospitanie*, 1944, No. 1, 32-36.

1725. Taillieu, J. La vie profonde de l'enfance. (The deep life of childhood.) Brussels: Office de Publicité, 1944. Pp. 269.—The author attempts to show the contribution to child psychology of the modern French novelists. She cites extensive passages from over 90 novels which might help to give a general picture of the psychological development of the child. It is pointed out that the psychology of the novelists lacks precision and is made up of a mixture of misunderstanding and truth from which it is difficult to extract any psychological facts. The general conclusion is that the psychologist ought to take account of the observations of the novelists, but that they, in turn, would do well to inform themselves of the results of psychological experimentation.—R. Piret (Liège).

[See also abstracts 1503, 1583, 1612, 1681.]

TEXTBOOK NEWS

THE SECOND EDITION

DEVELOPMENTAL PSYCHOLOGY

By FLORENCE L. GOODENOUGH

BECAUSE it presents the fundamental theories and principles of psychology in a lucid account of human growth from conception to death, this well-known textbook is being used in specialized college courses which deal with child development, developmental psychology, and related subjects, as well as in the regular, introductory course in psychology. The emphasis throughout the new edition is on the practical application of psychological principles to everyday living, and more attention is given than previously to the problems of personal and social adjustment and to the attainment of increasing happiness and efficiency. This smooth-flowing, personalized, and scientifically grounded treatment of the principles of psychology has proved to be very popular with students and succeeds as do few other textbooks in awakening in the student a serious interest in the science. 8vo, 666 pages. \$3.75

D. APPLETON-CENTURY COMPANY
35 West 32nd Street, New York 1, New York

1068 pages of important, authoritative data

MANUAL OF CHILD PSYCHOLOGY

Edited by **LEONARD CARMICHAEL**

*President and Director, Laboratory of Sensory Psychology
and Physiology, Tufts College*

Prepared by 19 outstanding authorities, this distinguished book presents a detailed survey—a review and critique—of important aspects of research in the scientific psychology of human development. It describes approved research techniques and methodology, tested hypotheses, and reliable facts; and it indicates those aspects of the subject in which further research is needed. A compendium of modern information, this book gives the most complete bibliographical survey of the literature on child psychology and development now available.

April 1946

1068 pages

Illus.

6-1/8 by 8-9/16

\$6.00

Copies available on approval

JOHN WILEY & SONS, INC.

440 FOURTH AVENUE

NEW YORK 16, N. Y.

A P A MOVES AGAIN!



The Committee on the
Washington Location
is pleased to announce
that after about April 1
The American Psycho-
logical Association, Inc.,
will occupy a new, per-
manent central office
at

1227 Nineteenth Street, N. W.
Washington 6, D. C.



All communications
regarding subscriptions
and changes of address
should be directed to

**The American Psychological
Association, Inc.**

1227 Nineteenth Street, N. W.
Washington 6, D. C.

HOW TO KEEP A SOUND MIND

A revision of
KEEPING A SOUND MIND

By John J. B. Morgan

*Late Professor of Psychology,
Northwestern University*

Thoroughly revised, with all material brought completely up to date, this well-known standard text for courses in mental hygiene presents the accepted facts about mental health in a straightforward manner, and in language which can be understood by anyone without training in medicine or psychology. Concrete illustrations taken from everyday life help the student to visualize each point as it is taken up.

404 pages

\$2.75

THE MACMILLAN COMPANY

60 Fifth Avenue • New York 11

BIOLOGICAL ABSTRACTS

Any student of the biology of man naturally would turn to *Biological Abstracts* because it is the only journal in the world which affords a complete coverage of all the biological literature.

Of particular interest to psychologists, such subjects as Human Biology, Animal Behavior, Neurology, Neurophysiology, Pathology of the Nervous System, Sense Organs, Biometry, Human Genetics, Nutrition, Endocrinology, etc., are fully covered. Clear, concise abridgments of the important contributions from some 2,000 journals from all parts of the world are being published promptly—in many cases before the original articles are available in this country.

As well as the complete edition, *Biological Abstracts* also is published in seven low priced sectional editions to meet a demand from individuals who are interested only in one or more closely related fields. Write for full details.

BIOLOGICAL ABSTRACTS

University of Pennsylvania
Philadelphia 4, Pennsylvania

Journal of Clinical Psychology

*A scientifically oriented professional quarterly
dedicated to the development of the
clinical method in psychology*

Special Introductory Offer to Members of
The American Psychological Association

ANNUAL SUBSCRIPTION REDUCED TO \$3.00

(REGULAR PRICE \$4.00)

SUBSCRIBE NOW

EDITORIAL AND BUSINESS OFFICES
MEDICAL COLLEGE, UNIVERSITY OF VERMONT
BURLINGTON, VERMONT

Just Out

Psychoanalytic THERAPY

CONTENTS

PRINCIPLES OF PSYCHOANALYTIC THERAPY

The Scope of Psychotherapy
The Development of Psychoanalytic
Therapy
The Principle of Flexibility
The Principle of Corrective Emotional
Experience
The Transference Phenomenon
Indications for Therapy
Planning Psychotherapy
The Dynamics of the Therapeutic
Process

APPLICATION OF PSYCHOANALYTIC THERAPY

Efficacy of Brief Contact
Emotional Reeducation in Supportive
Therapy
Control of the Transference Relation-
ship
Analysis of Character Disturbance
Alleviation of Rigid Standards
Corrective Emotional Experience
Through Rapport
Variations in Goal and Technique
The Use of Narcosynthesis in War
Neurosis
Conclusions and Outlook
Selected Reading List

Principles and Application

By Franz Alexander, M.D., and Thomas M. French,
M.D., with Staff Members of The Institute for Psycho-
analysis, Chicago

THIS significant new book offers the results of a seven-year study devoted to finding a shorter, less time-consuming, and consequently more accessible method of treating patients with nervous and mental disorders. The collective research is based on the findings of 292 Institute cases, in addition to an almost equally large number of patients seen in private practice.

In the more flexible method of psychotherapy developed through this study, psychodynamic principles are given immediately pertinent application. The Institute has found the new procedures efficient. According to its investigations many a patient for whom the longer therapeutic methods were impractical, could accept and utilize psychotherapy as described here. The book recounts the helpful application of psychotherapy in relieving the distress of sufferers from all types of emotional disturbances. The treatment reported in all cases follows the shorter method.

"... the most practical book on psychoanalysis that has come to my attention for several years." Arthur P. Noyes, M.D., Norristown (Pa.) State Hospital.

347 pages, \$5.00

Two Other Important Books for the Psychologist

Intelligence and its Deviations

By MANDEL SHERMAN, Director and Psychiatrist of the Orthogenic School of the University of Chicago. "In the preface of this publication the author states that: '... the purpose of this work is to present theoretical, experimental and clinical material on intelligence and its deviations. ... This book

treats together the medical, psychological, and social aspects of the subject and aims to correlate the essential data relating to each of these fields.' Dr. Sherman succeeds admirably in presenting what he promises in the preface." *American Journal of Orthopsychiatry* 286 pp. \$3.75

Personality and the Behavior Disorders

A Handbook Based on Clinical and Experimental Research. Edited by J. McV. HUNT. "Here is a scholarly work of encyclopedic character done by forty specialists who take exhaustive inventory of the vast wealth of recent clinical,

experimental and theoretical data on personality. Because of its solidity and comprehensiveness, the book demands a long review but even a long review can do no more than suggest the extent and richness of its content." *Journal of Abnormal and Social Psychology*. 2 vols., 1242 pp. \$10.00

THE RONALD PRESS COMPANY, Publishers
15 East 26th Street
New York 10, N. Y.



MW 5 One of the slides in Medichrome Series MW Neuropathology. Central chromatolysis in nerve cell—early stage. Anterior horn of spinal cord. Nissl stain. 500X



MX 55A One of the slides in the Medichrome Series MA Neuroanatomy. Motor end plates in muscle of rabbit. 280X

"MEDICHROMES"

TRADE MARK REG. U. S. PAT. OFF.

"MEDICHROMES" are 2 x 2" (35 mm.) Kodachrome transparencies (lantern slides) in the medical, nursing and biological sciences.

Our Catalog No. 151 describing over 5,000 Medichromes, most of which are available for prompt shipment from stock, is available to teachers and institutions.

"MEDICHROME" SERIES MA NEUROANATOMY

A series of approximately 150 2 x 2" Kodachrome transparencies, each an original photomicrograph made directly from the prepared microscope slide. Slides from the collection of Dr. Adolph Elwyn of Columbia University College of Physicians and Surgeons, New York City. See below for prices.

"MEDICHROME" SERIES MW NEUROPATHOLOGY

A series which will eventually total approximately 500 2 x 2" Kodachrome transparencies, each an original photomicrograph made directly from the prepared microscope slide. Slides from the collection of Dr. Abner Wolf, Department of Neurology, Columbia University College of Physicians and Surgeons, New York City. See below for prices.

"MEDICHROME" SLIDES KAPPERS BRAIN CHARTS

A series of nine 2 x 2" Kodachromes of the well-known Kappers Charts on the comparative anatomy of vertebrate brains. See below for prices. Descriptive key available at \$2.00.

"MEDICHROME" SLIDES STRUMPELL and JACOB NEUROLOGY CHARTS

A series of 21 Kodachrome slides of the well-known Strumpell and Jacob Neurology Charts. See below for prices. Descriptive key available at \$2.50.



M7470/L Kappers Chart on the Human Brain

M7477/15. Strumpell and Jacob Chart—Optic Nerve Tracts



PRICES FOR MEDICHROME SLIDES

MEDICHROMES in Adams Slide Binders, bound between glass with a cardboard frame Each 90¢

MEDICHROMES in cardboard readymounts, film surfaces are exposed Each 80¢

Quantity discounts for assorted Medichrome Slides . . . 5% for 50 or over—10% for 100 or over.

Write for descriptive literature

CLAY-ADAMS CO. INC.
44 EAST 23rd STREET, NEW YORK 10, N. Y.



The Nature and Conditions of Learning

By Howard L. Kingsley, Ph.D., Boston University

- This important new study, based on the known and controllable elements of learning, is designed to help educators and teachers gain a thorough knowledge of the nature of learning, and of the conditions which facilitate and retard it. Thus it meets the need for a text suitable for courses on the psychology of learning as well as on educational psychology where learning receives particular emphasis.

The book is organized into five divisions: the general nature of learning; fundamental principles of learning; the course of improvement; seven forms of learning, and general problems.

Publication in June. *College List*, \$4.50

Psychology of Adolescence

3rd Edition

By Karl C. Garrison, Ph.D.

- Reflecting a deeper, broader knowledge of human nature, this latest revision of a nationally popular study features important new material on such subjects as: problems of adolescents, heterosexuality, and the adolescent at school.

College List, \$3.50

Child Psychology for Professional Workers

Revised

By Florence M. Teagarden, Ph.D.

SEND FOR YOUR
APPROVAL COPIES

- New studies, new statistics, and new findings strengthen every chapter of this important text. To help the student the whole emphasis has been shifted from the laboratory to the individual case.

College List, \$3.75



PRENTICE-HALL, INC. 70 FIFTH AVENUE, NEW YORK 11

